A Grammar of Old English

In memoriam B.M.H.S., C.E.B., N.H.

A Grammar of Old English

Volume 1: Phonology

Richard M. Hogg

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The Atrium, Southern Gate, Chichester, West Sussex, PO19 8SQ, UK

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Preface

This present work is intended as the first of two parts of a contribution to the study of Old English phonology and morphology. Here I deal only with the phonological aspects; the second part will deal with the morphological aspects.

Like many of my predecessors, I do not expect, or even hope, that this present book will supersede those already written. But in the last quarter of a century, since the publication of Campbell's *Old English Grammar* and the third edition of Sievers-Brunner's *Altenglische Grammatik*, there have been major developments of both an empirical and a theoretical nature which have considerably enhanced our understanding of the linguistics of Old English and, perhaps, made the publication of this present book, which tries in some small way to reflect these developments, not unnecessarily premature. One might mention as examples the *Dictionary of Old English* project initiated by Angus Cameron at Toronto, the massive work on Old English syntax by Bruce Mitchell, and, on the theoretical linguistic side, the development of generative linguistics in its several forms.

At this point it may be worth making a few remarks on the so-called philology–linguistics debate, or, if one prefers, the debate between empirically oriented and theoretically oriented scholars, especially as this debate has been strongly focused on Old English by, for example, the discussions in Mitchell (1990a, 1990b). At the risk of seeming appallingly faint-hearted, I cannot help but confess that I do not always find the debate helpful: data, it is true, cannot be validated except in a theoretical context; but nor can a theory be validated except by the examination of data. Whether the chicken came before the egg or vice versa is rather less important than the acknowledgement that the two have a necessary, symbiotic relationship. It is my hope that the reader will observe at various points in this book a sufficiency of instances to confirm the truth of this claim. Furthermore, I have attempted to take in this work a positive, but conservative, approach to current linguistic theory. The result is that although I make reference to such current theories as non-linear phonology, or, more generally, to generative theory as a whole and to sociolinguistic theory, I prefer to take as my foundation phonemic theory, so that issues are not muddied by theoretical squabbles. In this way I have attempted to allow the reader to determine for himself or herself his or her own conclusions.

Whether this work differs from its predecessors in any of the above respects, I would not wish to say. However, I hope that readers will note that there are other differences, for example the greater emphasis on Late West Saxon than on Early West Saxon, for which the arguments have been well rehearsed elsewhere and need no repetition here. I have tried also to give a slightly greater emphasis to the non-West Saxon dialects, although that, of course, is not always possible given the dominance of West Saxon in our extant texts. I have not, however, attempted to give any systematic treatment of poetic texts, whose phonology and morphology, I believe, are best tackled after the elementary facts have been studied.

This book could never have been written without the help and encouragement of many friends and colleagues, but my main debt, of course, is to my predecessors, such as Brunner, Bülbring, Campbell, Girvan, Luick, and Sievers. But not merely to such as they, also to the many students of individual texts, for example, Brown, Cosijn, Lea, Lindelöf, Zeuner, and those who have followed in later years, most obviously J.D. Pheifer and J.B. Wynn.

But I owe more personal debts too. Firstly, to Angus McIntosh, John Anderson, O.K. Schram, and David Tittensor, who introduced me as an undergraduate at the University of Edinburgh to the study of Old English. They encouraged me also to write this book, and if it had not been for their encouragement, and also that of Barbara Strang, C.E. Bazell, Stan Hussey, Sir Christopher Ball, and Roger Lass, I might never have undertaken the enterprise.

Secondly there are those who have commented on parts of this manuscript in one or more of its forms: those whom I have already mentioned and others also: Fran Colman, Martin Durrell, Elan Dresher, Jacek Fisiak, Dorothy Horgan, Chris McCully, Patrick Stiles. Thirdly, there are those with whom I have corresponded or whose brains I have picked informally. They, alas, are too many to mention here, except that I cannot refrain from noting the help of the scholars at the Toronto *Dictionary of Old English* project. It is a source of regret to me that I cannot offer this book to Angus Cameron and Ashley Crandell Amos, but at least Toni Healey can accept my thanks on their behalf and on her own. Fourthly, I have had the benefit of help from many colleagues at Manchester. Brian Cox and David Palmer would not pretend to a primary interest in Old English studies, but I am all the more grateful to them for their advice and support. David Denison and Nigel Vincent have helped in many more direct ways, and my other colleagues have given me support in measures greater than I could have expected. Maxine Powell, Alison Weldrick, Mary Syner, and Shelagh Aston have exercised a degree of control and efficiency over my affairs which I could never have exercised myself, in addition to their invaluable help in the production of this book.

At the publishers, Philip Carpenter has both encouraged and exhorted me, with a degree of patience he must surely have found difficult to sustain. At home Margaret, Daniel, and Robert have shown a discerning lack of interest in Old English studies, but yet given me that loving environment which has made the production of this work both easier and more enjoyable. If I had not posthumous debts to pay, this book would surely have been dedicated to them.

Richard Hogg

List of Abbreviations

General

Angl	Anglian
C	consonant
EGmc	East Germanic
eME	early Middle English
eNbr	early Northumbrian
eOE	early Old English
EWS	Early West Saxon
Ger	German
Gmc	Germanic
Got	Gothic
Grk	Greek
IE	Indo–European
IGmc	Inland Germanic
IPA	International Phonetic Alphabet
Kt	Kentish
lNbr	late Northumbrian
Lat	Latin
Li	*Lindisfarne Gospels*
lLat	late Latin
lOE	late Old English
LVD	*Liber Vitae Dunelmensis*
LWS	Late West Saxon
MCOE	*Microfiche Concordance of Old English* (= Healey and Venezky, 1980)
ME	Middle English
Merc	Mercian
ModFris	Modern Frisian

N.	northern
Nbr	Northumbrian
NGmc	North Germanic
NMerc	North Mercian
NNbr	North Northumbrian
NSGmc	North Sea Germanic
nWS	non-West Saxon
OE	Old English
OED(S)	*Oxford English Dictionary* (and *Supplement*), see References
OFris	Old Frisian
OHG	Old High German
ON	Old Norse
OSax	Old Saxon
PDE	Present-day English
PrGmc	Primitive Germanic
Ru1	*Rushworth Gospels* (Mercian portion)
Ru2	*Rushworth Gospels* (Northumbrian portion)
S.	southern
Scand	Scandinavian
SE	south-eastern
SNbr	South Northumbrian
V	vowel
WMerc	West Mercian
WS	West Saxon

Special

a	aanmerking (in citations of Dutch texts)
A	Anmerkung (in citations of German texts)
n	note (in citations of English texts)
†	form not found in MCOE
>	develops to
<	develops from
⊃	is a member of
*	reconstructed or hypothetical form
**	form not known to occur in Old English

Grammatical

a.	adjective
acc.	accusative

comp.	comparative
dat.	dative
fem.	feminine
gen.	genitive
imp.	imperative
ind.	indicative
inf.	infinitive
infl.	inflected
instr.	instrumental
loc.	locative
masc.	masculine
n.	noun
neut.	neuter
nom.	nominative
pa.	past
part.	participle
pl.	plural
pr.	present
pret.	preterite
pron.	pronoun
sb.	substantive
sg.	singular
str.	strong
subj.	subjunctive
superl.	superlative
v.	verb
wk.	weak
1sg., 2sg., 3sg. etc.	first person singular, etc.

1

Introduction

1.1 The term ‘Old English’ is the usual current term for the historical period of English beginning with the first settlements of people speaking a Germanic language and ending about fifty years after the Norman Conquest.[1] This term is to be preferred to ‘Anglo-Saxon’, see OED Anglo-Saxon,[2,3] Sweet (1871: v), Campbell (1959: §1n1). The period covered by Old English, therefore, is approximately 700 years (from *c*.425 to *c*.1125). Within this span there is a clear-cut division between the pre-textual or prehistoric period and the textual or historic period, with the first textual records appearing from about the beginning of the eighth century. For further chronological divisions see the discussion in §1.4.

---

[1] Standard handbooks on the topic of the present works are: Brunner (1965), Bülbring (1902), Campbell (1959), Girvan (1931), and Luick (1914–40) (the last deals with phonology only, the others deal also with morphology). Other important, but less full, works include Pilch (1970), Quirk and Wrenn (1957), and J. Wright and Wright (1925).

[2] However, the OED sense IB of Anglo-Saxon, that is the southern (WS and Kt) dialects of Old English as opposed to Anglian for the northern dialects, has nothing to commend it and is avoided here.

[3] For the term ‘Anglo-Saxon’, see further Malone (1929).

1.2 The English-speaking area of Britain during the Old English period naturally varied somewhat over the years. Generally speaking it may be said to have covered the whole of present-day England excluding Cornwall but together with Scotland south of the Forth–Clyde valley and with Offa’s Dyke as its western boundary with Wales. Naturally not every part of the country within these definitions would have been exclusively, or, in some cases, at all, English-speaking, but the large majority of these areas would have been dominated by English, and all would have had the potential to be so dominated. For further details of the geography of Anglo-Saxon

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England see Hill (1981), whilst Stenton (1971) is the most authoritative general history of the period and country. For discussion of geographical (dialect) variation in Old English, see §§1.5–12 below.

1.3 English belongs to the Germanic branch of Indo-European. Conventionally the Germanic languages have been divided into three groups: East Germanic, North Germanic, and West Germanic, and English is there considered to be part of the West Germanic group. However, such a division is difficult to sustain in a rigid manner, both on grounds of general theories of linguistic development and on the basis of the characteristics of the various Gmc languages. Amongst various theories which have been widely espoused,[1] perhaps the most probable is that the first major separation of the Germanic languages saw the emergence of East Germanic, in particular, Gothic, between the second century BC and the second century AD. The remaining (North–West) Gmc dialects retained some unity and shared innovations for some time after that, but probably by the end of the fourth century, the major separation of these dialects into North Gmc (that is, Scandinavian languages), Inguaeonic or North Sea Gmc (OE, OFris, OSax), and Inland Gmc (High German) had taken place. The often-supposed unity of North Sea and Inland Gmc as West Gmc (that is, in opposition together to North Gmc) is not easy to establish, although the geography of Gmc settlements speaks to some extent in its favour. In this work we shall group the various Gmc dialects under the terms: (1) Gothic; (2) Scandinavian Gmc; (3) WGmc. However, where we are dealing with phenomena that are exclusive to the group containing OE, OFris, and OSax, we shall use the term N(orth) S(ea) Gmc (in contrast to I(nland) Gmc) as an alternative classification to WGmc, without any implication that NSGmc is a later development of a previously united WGmc.

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[1] For a detailed account of current thinking concerning the dialects of Gmc and their development, see Kufner (1972). Prokosch (1939: 25–34) remains useful on the same topic. Much remains unclear and uncertain, but it can safely be stated that a simple tripartite division of Gmc according to the *Stammbaum* model (into EGmc, NGmc, WGmc) is untenable on both theoretical and empirical grounds.

1.4 In dealing with a stretch of language over 700 years, it must firstly be recognized that there will inevitably be structurally significant changes during that period. An initial division of OE is possible as follows. Firstly, **prehistoric** or **proto-OE**, namely the period for which we have no, or no significant, textual material. This period stretches from the first settlements in the fourth century to *c.*700. It is generally held that the principal OE sound changes, such as breaking, palatalization, *i*-umlaut, etc., belong to this period, but it is clearly the case that other changes, such as smoothing and back umlaut, are partly in this period and partly in the next, and there are other important changes, such as the varied development of diphthongs, which belong in large part to later periods. Secondly, it is noticeable that the characteristics of the earliest texts are often quite different from those of a later time, notably in the lack of a stable, general orthographic system. Such texts may be grouped together under the rubric of early OE, *c*.700–900, or, rather, up to and including the time of the Alfredian texts, see §1.10. Thirdly, there begins to emerge in the latter part of the tenth century a written standard language or *Schriftsprache* with a stable orthographic system. The *Schriftsprache* is most obviously associated with the works of Ælfric, see §1.10, but is more generally found, and it may be taken as the basis of a **standard** or **classical OE**, extending for about the last hundred years before the Norman Conquest. Finally there is the period when the OE scribal and orthographic traditions are beginning to break down, even if the language is still characteristically OE rather than ME and the traditions of the *Schriftsprache* are still evident. This period may be termed that of **transitional OE**, although it is often taken together with the immediately preceding period as **late OE**.[1] It should be noted that the above divisions are made here entirely in terms of scribal and orthographic practice, but it is possible to associate the periods also with varying linguistic structures, particularly, perhaps, the status of inflexions.[2]

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[1] For the status of texts belonging to this transitional period see Clark (1970). C. Sisam and Sisam (1959) and Vleeskruyer (1953) also provide important discussions in the introductory material to their editions of transitional texts.

[2] Thus we may characterize proto-OE as the period when inflexions, especially inflexional vowels, were maximally differentiated; in early OE the front vowels of unstressed syllables (and hence inflexions) were beginning to merge; and in classical OE we can trace a gradual merger of the back unstressed vowels; finally in transitional OE all unstressed vowels are merging. Such a division is, of course, highly schematic, and hides, for example, differences between dialects or even individual texts. On the other hand, it shows that the suggestion of Malone (1930) that Middle English begins *c*.1000 is based on the false assumption that OE is to be characterized, following Sweet (1874: 620), as the period of full inflexions as against ME, the period of levelled inflexions.

1.5 The origins of the dialectal diversity of Anglo-Saxon England have been the subject of much dispute, see for full references DeCamp (1958), Samuels (1971). Some of the difficulties of the division of Gmc referred to in §1.3 stem from variation within and overlap between Gmc dialects, and therefore it is natural to assume that some distinctive dialect characteristics of OE had their origins on the Continent rather than in Britain. On the other hand the tradition which stems from Bede of a tripartite division at the time of the settlements into Angles, Saxons, and Jutes must be regarded warily, see Hogg (1988) *contra* Campbell (1959: §5). The differentiation of dialects during the OE period must have been a continual process, with the differences being at least equally a result of linguistic circumstances within Britain. For contrasting views on this topic see again DeCamp (1958), Samuels (1971).

1.6 It is traditionally assumed, for example in Campbell (1959: §6), see also Crowley (1986), that there are in OE four distinct dialect areas: Northumbrian, Mercian, Kentish, and West Saxon.[1] Of these Northumbrian and Mercian may be classed together as Anglian, Kentish and West Saxon as Southern, and the agreement of Northumbrian, Mercian, and Kentish against West Saxon may be abbreviated as non-West Saxon. In this work too that general classification is used, subject to minor modifications, see below. However, it is important to recognize that it is open to several major caveats and objections. Firstly, it is well known that these dialects refer only to actual linguistic material, and therefore there are large areas of the country, most obviously East Anglia, about whose dialect status we cannot know directly from OE evidence.[2] Secondly, the nomenclature adopted is derived from political structures whereas most of the writing we have is to be more directly associated with ecclesiastical structures.[3] Thirdly, the type of approach which leads to the above division is a product of the *Stammbaum* and its associated theories, whereas modern dialectology, either synchronic or diachronic (as in McIntosh, Samuels and Benskin, 1986), demonstrates that such a rigidly demarcated division is ultimately untenable. It would be preferable to consider each text as an 'informant', see McIntosh, Samuels and Benskin (1986: 1–28), which is more or less closely related to other texts on an individual basis, with the classification of texts into dialect groups being viewed as a process determined by the purposes of the linguistic analysis at hand, rather than as some a priori fact, for further discussion see Hogg (1988). The use here of the traditional classification, therefore, is a matter of convenience (essentially in the question of reference to other work).[4]

[1] For further minor subdivisions see §§1.7–10.

[2] For the ME dialects and their relation to OE see Jordan (1974), McIntosh, Samuels and Benskin (1986).

[3] This, of course, is because the majority of texts which we have originate from ecclesiastically run scriptoria. It is tempting, therefore, to suggest an alternative classification based on dioceses, where Northumbrian = Durham and (?)York, Mercian = Lichfield and (?)London, Kentish = Canterbury, West Saxon = Winchester. The objections to this are obvious, but in essence no more powerful than those to the traditional names, see further Crowley (1986).

[4] See also Luick (1914–40: §19).

1.7 Although geographical definitions are particularly elusive for the OE period, the Northumbrian dialect may be broadly identified with an area north of a line from the Mersey to the Humber. Amongst the early texts there can be especially noted the Moore and Leningrad mss. of *Cædmon's*

Hymn (*c*.737, 746), which are unambiguously linked with Bede. Of much the same period and also clearly Nbr is the runic inscription on the Ruthwell Cross,[1] whilst the runic inscription on the Franks Casket (the Auzon Rune), which is certainly no later, is not localizable on non-linguistic grounds, although linguistically it is certainly Nbr. Slightly later than these, probably ninth century, are *Bede's Death Song* and the *Leiden Riddle*. Other early texts which provide some evidence of Nbr are the Latin mss. of Bede's *Historia Ecclesiastica*, in which there are many OE names, and the names of benefactors in the *Liber Vitae Dunelmensis*, texts of the eighth to ninth centuries. There are difficulties in using the evidence of names too freely, see Campbell (1959: §7), and here such evidence is only cited when of special interest. For later Nbr the most important texts are the interlinear glosses to the *Lindisfarne Gospels*, the *Durham Ritual*, and the *Rushworth Gospels*. The former two were written by Aldred, a priest at Chester-le-Street (Co. Durham), and are probably of the second half of the tenth century. The *Rushworth Gospels* were written only slightly later 'æt Harawuda',[2] probably Harewood (Yorks.) by two scribes, Farman and Owun. Only that part written by Owun, that is, Mark except I–II.15, Luke, and John except XVIII. 1–3, is Nbr. Owun's text is usually described as *Rushworth*^{2} (Ru2), in distinction to the Merc part, see §1.8. Ru2 is clearly distinct from the other lNbr texts, and is often described as South Nbr, after Lindelöf (1893, 1901); the other texts, therefore, being North Nbr.[3,4]

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[1] As Ball (1988) points out, it is unsafe to place primary reliance on the Ruthwell Cross for the identification of Nbr, *contra* Campbell (1959: §6). For a full study of this inscription see now King (1986).

[2] But this may simply mean that the scribes, Farman and Owun, were based at Harewood. It seems more likely that they wrote the glosses at Chester-le-Street, see Ross (1981: §11).

[3] It is extremely difficult to place the eNbr texts within this North-South dichotomy, and the temptation should probably be resisted.

[4] Major works of reference for the Nbr dialect are cited in Campbell (1959: 360–2).

1.8 Mercian is the least well defined of the OE dialect areas, and indeed the term hides a degree of linguistic variation rather greater than elsewhere. Its use is normally as a cover term for texts which may be supposed to originate from somewhere south of the Nbr area, but see below, and north of the Thames. The earliest of the Merc texts are the *Épinal* and *Erfurt Glossaries*, both of the first half of the eighth century,[1] and associated with these is the *Corpus Glossary*, probably late eighth century. Of these, *Épinal* consistently has the more archaic forms, whilst *Erfurt*, written by a German scribe, is prone to error and the least reliable. There is some scattered evidence to suggest that all three texts, presumably by virtue of the same archetype (although the relationship is complex), have some elements of a more southerly dialect, either WS or Kt. The question is quite unsettled, see, for example, Pheifer (1974: §90), Wynn (1956: §§175–81), although it would not be unreasonable to consider the texts as South Merc. Markedly different from these glossaries is the interlinear psalter gloss, the *Vespasian Psalter* (Ps(A)). Ps(A) seems most probably to have been written by a Kentish scribe at Canterbury from a Merc original, which we may presume to associate with Lichfield, the result being a remarkably accurate copy of the original.[2] The association with Lichfield and consequently with some eME texts of the West Midlands, that is, the 'AB dialect' texts, points to a West Merc classification of this text. The third major Merc text comprises those parts of the *Rushworth Gospels* written by Farman, namely Matthew, Mark I–II.15, and John XVIII.1–3, usually known as *Rushworth*[1] (Ru1). It is impossible that Farman and Owun both came from Harewood, since the dialects of Ru1 and Ru2 are clearly distinct. Assuming that Owun was a Yorkshireman, or was writing in a Yorkshire (SNbr) dialect, it would be plausible to suggest that Farman was non-native and came from somewhere further south. Since the dialect of Ru1 is often distinct from that of other Merc texts and provides a link between Nbr and Merc, it might usefully be classified as North Merc, see Bibire and Ross (1981).[3] There are a number of other minor Merc texts, such as the *Blickling Psalter* and the *Lorica Glosses and Prayer*, and the recently discovered Med 5.10 (Schaumann and Cameron, 1977). More securely localized are the partly English Ch 190 (Hanbury, Worcs.) and the wholly English Ch 204 (Wotton, Bucks.). For the transitional period there is the valuable LS 3 (Chad), see Vleeskruyer (1953).[4,5]

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[1] The dating of these mss. has long been controversial, but it would seem most probable that *Épinal* was written *c.*725, *Erfurt* slightly later and *Corpus* towards the end of the eighth century, see Chadwick (1899), Pheifer (1974: §88), Bischoff and Parkes (1988), and, for an older expression of the same relative chronology, but with an earlier absolute chronology, Sweet (1885: 2–3). Contrary views may be found in Campbell (1959: §12) and, albeit hesitantly, Wynn (1956: §182).

[2] The dialect of Ps(A) has aroused much controversy. For the early history of this see Sweet (1885: 184). Sweet's earlier view that the text was Kt is reflected in Zeuner (1881) and even as late as Wilson (1959). Kuhn (1965: v–vi) argues for a purely Lichfield origin, whilst Campbell (1967: 82) suggests it was glossed at Canterbury by a Merc scribe. The view expressed here follows Ball (1972).

[3] A further confusion follows from the fact that in Ru1 Farman uses a number of forms which are typically WS, such as *ǣ* for *ǣ*$_1$, *eall* 'all' against *all*. Such forms have a tendency to be restricted to more common words and would suggest that they were learned by Farman at a WS(-influenced) scriptorium, rather than being native to his dialect.

[4] It should be emphasized that the geographical distinctions made here between varieties of Merc are primarily intended as an indication of the non-homogeneous character of Merc. The status of Merc is one which remains doubtful and which must therefore be treated with suspicion, see Hogg (1988).

[5] Major works of reference for the Merc dialect are cited in Campbell (1959: 359–60, 362–3). Note additionally: Brown (1969), Mertens-Fonck (1960), Pheifer (1974), Schaumann and Cameron (1977), and Wynn (1956).

1.9 Although geographically and probably also textually the smallest of the dialect areas, Kentish provides considerable problems for the dialectologist, see Crowley (1986: 103–4). Material before the ninth century is restricted to names in Lat charters, and only from about 805 do charters principally in English begin to appear. Charters of the first half of this century include those numbered 34, 37, 40, 41 in Sweet (1885) (= Ch 41, 1188, 1197, 1482); whilst for the second half of the century we have Sweet's Ct 38, 39, 42 (= Ch 1200, 1195, 1510) together with Sweet's Ct 45 (Ch 1508) and the *Codex Aureus* (Rec 6.5), both associated with Surrey geographically, but linguistically to be aligned with Kt.[1] This distinction is important, for the former texts are a product of a Mercian scribal tradition, whereas the latter are not, see Brooks (1984: 155–74), Hogg (1988: 194–8). Finally there is a group of three tenth-century texts, the *Kentish Psalm*, the *Kentish Hymn*, and the glosses to *Proverbs*, which show a later development of Kt which is considerably influenced by WS. The three periods of texts may be described as early, middle, and late Kt.[2]

[1] The attempt by Ekwall (1923: 61–3) to show that the Surrey texts are in a Merc dialect is unconvincing, see Campbell (1959: §14n2) and also §§5.115, 119n1. Even Campbell's cautious statement (1959: §14) that the Surrey and Kt dialects were 'practically identical' may be unnecessary.

[2] Major works of reference to the Kt dialect are cited in Campbell (1959: 363)

1.10 Although the most widely attested dialect is West Saxon, which geographically covers the Thames Valley and areas to the south and west of that, centring upon Winchester, texts earlier than the end of the ninth century are rare in that dialect, exceptions being names and boundaries in Ch 264 (AD 778) and Ch 298 (AD 847). About 900 comes a group of texts associated with Alfred or his court: the translation of the *Cura Pastoralis*, the Parker ms. of the *Anglo-Saxon Chronicle* to 924, and the translation of Orosius. These texts share many features and are usually classified as 'Early West Saxon' (EWS), although a more helpful description might be Alfredian WS. Remarkably, such texts show a considerable degree of Merc influence, which is unlikely to be due merely to Merc scribal habits.[1] As shown by Gneuss (1972), there developed in the latter half of the tenth century a *Schriftsprache* which diverges considerably from EWS in all aspects of structure. This *Schriftsprache* seems to have been inspired by Æthelwold (and might therefore be called Æthelwoldian WS), but it is seen most clearly in the writings of Ælfric (*c*.1000). At this point the *Schriftsprache* becomes extended geographically and can be found to a greater or lesser extent in writings not strictly WS, such as the *Homilies* of Wulfstan. Intermediate between EWS and LWS are a number of texts of which the most important are the *Leechbook* of Bald, the gloss on the *Junius Psalter*, the Abingdon mss. of the *Anglo-Saxon Chronicle*, and the West-Saxon Gospels.[2]

[1] The linguistic status of EWS remains controversial. My own views are expressed in Hogg (1988), cf. Stanley (1969), Lutz (1984).

[2] Major works of reference for EWS and LWS respectively are cited in Campbell (1959: 363–4; 364–6). Note additionally: Kim (1977) and Sprockel (1965). Also important is the introductory material in Bately's (1980) edition of *Orosius* and Pope's (1967–8) edition of Ælfric.

1.11 The above discussion generally excludes poetry. OE poetry is mostly to be found in collections dated *c.*1000: the Vercelli Book, the Exeter Book, the *Beowulf* ms., and the Junius (Cædmon) ms. They tend to be written in a form of language which combines West Saxon and Anglian elements to a degree not usual elsewhere, rather than adhering to the LWS norm which might be expected from their date and origin. It is true that there is variation from ms. to ms. – for example, in the Exeter Book LWS forms have a greater tendency to predominate – but their general agreement suggests that we are dealing with a common poetic dialect (most obviously in terms of vocabulary, but in fact affecting all aspects of linguistic structure).[1] The characteristics of this variety are not considered in this work except where individual forms are of more general relevance.

[1] For important comments on the poetic language see K. Sisam (1953: 138). Cameron et al. (1981) gives a detailed and valuable analysis of the *Beowulf* poem.

1.12 The limitations of OE dialectology expressed in §1.6 arise in many respects from the nature of the major texts discussed above and the development of scriptoria and scribal habits. A more precise understanding of dialectal variation in OE may be available from a close study of charters and place-names, see, for example, Brandl (1915), Ekwall (1917b), and the survey in Crowley (1986). Important ongoing work is being conducted by Kitson, see, for example, Kitson (1990). In the present circumstances, it must be emphasized both that dialect terms such as West Saxon are linguistic artefacts and that the dialect situation in Anglo-Saxon Britain was no doubt more complex and more variable than such terms appear to allow.[1]

[1] The following are important reference works for material outside the scope of this book. In semantics and vocabulary the standard dictionary remains Bosworth and Toller (1898), supplemented by Toller (1921), Campbell (1972). Whilst we await full publication of the DOE, Healey and Venezky (1980) provides an invaluable concordance

of the material. A good general survey is Kastovsky (1992), whilst Schabram (1965), Gneuss (1972), and Wenisch (1979) are essential for the dialect evidence. In syntax the standard reference work is now Mitchell (1985). A good survey of OE syntax in the light of current linguistic theory is Traugott (1992). The standard reference work in palaeography is Ker (1957). Although dealing principally with OE literature, Greenfield and Robinson (1980) is a major bibliographical tool, see also Mitchell (1990a) for syntax, and the annual bibliographies in *Anglo-Saxon England*, the *Old English Newsletter*, and *The Year's Work in English Studies* provide full updates of information in all the relevant areas.

2

Orthography and phonology

2.1 Old English was written by contemporary scribes in a modified form of the Latin alphabet in the insular script, a development of the insular half-uncial brought to England by Irish missionaries. The latter script is found in a few early charters, the latest of which is Ch 264 of 778, cf. too LVD of the early ninth century. Three Latin charters contain English names in the uncial script, the latest being Ch 89 of 736. From the eleventh century a few letter-forms from the continental caroline miniscule are to be found. The insular forms of the letters ⟨e, f, g, r⟩, and ⟨s⟩ are quite distinct from the forms of the later carolingian script, and this has led, in the case of (g), to its replacement by ⟨ȝ⟩ (yogh) in some modern editions. For OE such usage is unnecessary, see Hogg (1992b). The letters ⟨þ⟩ (thorn) and ⟨ƿ⟩ (wynn) were borrowed from the Anglo-Saxon versions of the runic alphabet, see Hogg (1992b). The letter ⟨ð⟩ (eth)[1] is a native innovation.[2]

[1] Whilst *thorn* and *wynn* are the Anglo-Saxon runic names for these letters, *eth* appears to be a nineteenth-century coinage, see OEDS *edh*, the OE name for the letter being *ðæt*, see Robinson (1973: 450–1).

[2] For a full account of OE orthographical practices see the Introduction to Ker (1957), also Keller (1906).

2.2 The following letters were commonly employed by OE scribes: ⟨a, æ,[1] b, c, d, e, f, g, h, i, l, m, n, o, oe,[2] p, r, s, t, þ, ð, u, ƿ, y⟩. For the rarer letters ⟨q, k, x, z⟩ see §§2.45nl, 50, 51, 65nl. ⟨ƿ⟩ is normally written as ⟨w⟩ in order to avoid confusion with ⟨p, þ⟩, and this practice is adopted here also.

[1] For variant forms of ⟨æ⟩ and their possible values, see §2.12nl.

[2] ⟨oe⟩ is properly a digraph, but it is included here for convenience, see §2.17 for further details.

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2.3 Abbreviations in OE mss. are few compared with Latin mss. of the same period, but the following are very common: ⟨⁊⟩ = *and*, ⟨ꝥ⟩ = *þæt*, ⟨†⟩ (that is, Lat. *vel*) = *oððe*. A stroke over the preceding letter is commonly used to signify: (1) final ⟨m⟩ after a vowel (*frā* = *fram*); (2) final ⟨ne⟩ after ⟨n⟩ (*þon̄* = *þonne*); (3) ⟨er⟩ after a consonant (*æf̄t* = *æfter*); (4) ⟨o⟩ after ⟨f⟩ (*f̄re* = *fore*).[1]

2.4 Vowel length is not normally marked by OE scribes, but early mss. especially sometimes use double vowels to indicate long vowels, for example, EpGl 346, CorpGl 295 *liim* 'cement'. Forms such as EpGl 71 *fraam* 'bold' where the vowel is short, cf. ErfGl, CorpGl *from*, may indicate stress (Pheifer 1974: §37n2), contrasting with unstressed *fram* 'from'. Other examples are clearly illogical, such as Med 5.10 *seecġ* 'sedge'.

2.5 The acute accent which is commonly found in many mss. is not normally to be taken as an indicator of vowel length. It is most frequently found on monosyllables, inflected or not, and can coincide with either length or stress, examples of the latter being *wéġ* 'way', *forwúrdon* 'thrown away'. The accent is also common on monosyllabic prefixes, where its purpose is unclear; it may simply have been a clarificatory sign for the reader or some indication, especially in the case of pronouns and other normally unstressed forms, of sentence stress. In eleventh century texts a superscript curl and a circumflex begin to be used as indicators of short vowels, for example, *mànn* 'person', *ġenâm* 'taken'. In mss. where the superscript curl is restricted to short vowels in closed syllables, an extra-long macron could be used to indicate a short vowel in an open syllable, this macron extending over the following consonant and vowel, for example, *go̅d̅e̅s* 'god' gen.sg. For fuller details see K. Sisam (1953: 186–8).

2.6 Of the letters in the OE alphabet, the following were normally used to represent vowels: ⟨a, æ, e, i, o, oe, u, y⟩.[1] In addition the following digraphs were regularly used: ⟨ea, eo, ie, io⟩.[2] There is considerable controversy over the interpretation of the digraphs, see the discussion in §§2.19–29.

2.7 Unfortunately there is no contemporary account of OE phonology such as exists for Icelandic,[1] and therefore in determining the sound system of OE we must rely on other criteria, such as the later history of English, linguistic plausibility, etc. The only contemporary evidence we have is OE scribal practice. There is some evidence that OE spelling was often closely related to actual pronunciation in an intelligent manner, even when the standardized conventions of the Æthelwoldian *Schriftsprache* were in force, see §1.10.[2] Thus we find the deliberate adaptation or creation of graphs, such as ⟨æ, oe, y⟩, for purposes other than those in the Roman alphabet. Furthermore, OE scribes seem to have been usually quite careful in distinguishing minimal contrasts, as in the alternation of geminate and non-geminate consonants in medial position, such as *fremme* 'I perform' pr.ind., *freme* 'perform' imp.sg. Nevertheless, there are several cases where the OE spelling is an unreliable guide to pronunciation. Thus the letters ⟨c⟩ and ⟨g⟩ represent a wide variety of sounds from, on the one hand, a palatal approximant or high front non-syllabic vowel, as in *dæġ* 'day', see §2.39, to a velar stop, as in *þinga* 'thing' gen.pl. There are also many examples of analogical spellings which need not have any phonological significance, such as *dæġ*, see above, but Ch 1510 *dei*,[3] and *fætt* 'fat' beside *fæt*, where a final geminate is unlikely, see §§7.80–1. Other examples are less clear, thus spellings in Or *hwales* 'whale' gen.sg., *-hwælum* dat.pl. appear to be due to orthographic confusion whose phonological significance is by no means certain. Finally, not all spelling distinctions should be assigned the same phonological status.[4] Just as not all values represented by ⟨g⟩ are non-contrastive, so too it ought not to be assumed that different spellings necessarily signal a phonological contrast. Thus whilst ⟨a⟩ in *dagum* 'day' dat.pl. represents /ɑ/, this does not imply that ⟨o⟩ in *mon* 'man' could not also represent the same phoneme, see §2.13. Similarly, that ⟨ēa⟩ : ⟨ǣ⟩ and ⟨ea⟩ : ⟨æ⟩ represent parallel phonological contrasts is not to be assumed from spelling alone.

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[1] For other abbreviations, including use of runes and Latin abbreviations, see Campbell (1959: §§24–5).

[1] ⟨i⟩ and ⟨u⟩ were also used to represent approximants, see §§2.76–7.

[2] For other, rarer, graphic combinations used alongside these digraphs, see §§2.32–4.

[1] See Benediktsson (1972), Haugen (1950).

[2] See, for example, Bierbaumer (1988). For an alternative view see Stanley (1988).

[3] *Dei* has *æ* > *e* by normal Kt raising, see §§5.189–91.

[4] For discussion of this question see Hockett (1959), Stockwell and Barritt (1961).

2.8 It is, therefore, worth emphasizing that our knowledge of the sounds of a dead language cannot be precise. In the first instance we can only hope to present an outline of the sound-system of such languages. Therefore transcriptions below will normally be presented phonemically and phonetic transcriptions will only be given where they are both necessary and possible.[1] Furthermore, the choice of symbols for use in transcription is regularly dictated by common linguistic practice and it has no necessary implications for the pronunciation of OE. For example, except where there is pressing evidence to the contrary, vowels will normally be transcribed in terms of IPA standard conventions, but this should only be taken as a guide to comprehension of the system of phonological contrasts existing in OE. A transcription such as /iː/ for ⟨ī⟩ does not therefore imply that OE speakers pronounced ⟨ī⟩ as cardinal vowel 1. In the case of vowels there may indeed have been a qualitative difference between long and short vowels, the former being slightly higher, the latter being more centralized.[2] It is, however, clear that the primary distinction was quantitative, and qualitative distinctions are therefore only mentioned (or transcribed) where historically important.

[1] The following conventions are used throughout. Slant brackets (//) enclose strictly phonemic transcriptions; square brackets ([ ]) enclose strictly phonetic transcriptions; angled brackets (⟨⟩) enclose orthographic sequences. Additionally italics are used both for cited forms and for broad phonetic transcriptions (most often used where questions of phonemic status are not at stake and for transcriptions of reconstructed Gmc and proto-OE forms). I appreciate that this could sometimes give rise to ambiguity, but there seems to be no other set of notations which would avoid the problem more satisfactorily.

[2] See Kuhn (1961: 524–5) and, for a contrary view, Campbell (1959: §31n2).

2.9 The three principal phonological contrasts found in the OE vowel system[1] are on three parameters: height; backness; rounding. It is most probable that there was a three-way height contrast, that is, high ~ mid ~ low.[2] There was also a two-way contrast for backness, that is, front ~ back. Rounding was the contrast most peripheral to the phonological system, operating contrastively only for nonlow front vowels, and even there the contrast had been lost for most dialects by the end of the period. There may also have been a distinction in rounding between low back vowels, but this was rarely, if ever, more than allophonic, see §2.13.

[1] §§2.9–18 discuss stressed vowels only; for unstressed vowels see §§2.42–4.

[2] It is sometimes claimed that in WMerc, after the operation of second fronting, there was a four-way height contrast amongst short front vowels, the product of second fronting being, allegedly, /ɛ/. For further discussion of this unresolved problem see §§5.87, 92.

2.10 ⟨i⟩ represents in all dialects a high front unrounded vowel, both short and long. The normal transcriptions for these sounds are /i, iː/. Examples of short and long vowels are *biden* 'wait' pa.subj.pl., *bīden* pr.subj.pl.

2.11 ⟨e⟩ represents in all dialects a mid front unrounded vowel, both short and long. The normal transcriptions for these sounds are /e, eː/, and it is certain that phonemically they did not contrast in height. However, it is quite possible that the short vowel was phonetically lower and/or more centralized than the long vowel. Examples of short and long ⟨e⟩ are: *metan* 'measure', *mētan* 'meet'.

2.12 ⟨æ⟩ represents in all dialects a low front unrounded vowel, both short and long.[1] The normal transcriptions for these sounds are /æ, æː/. The use of these symbols should be viewed as a convenient mnemonic in the light of OE orthography, and developments in both OE and ME suggest that the long vowel was phonetically within the range [ɛː] to [æː] and the short vowel within the range [æ] to [a]. Examples of short and long ⟨æ⟩ are: *mæst* ‘mast’, *mǣst* ‘most’.

[1] In early mss. ⟨ae⟩ was used alongside ⟨æ⟩, without distinction, but by *c*.800 the ligatured form prevails. Also found is ⟨æ⟩, sometimes represented, especially in Sweet (1885), by ⟨ę⟩. The distinctions are probably purely orthographic, see Williams (1905: §§102–5), and hence it is preferable to transcribe all three as ⟨æ⟩ unless paleographic considerations are of importance.

2.13 ⟨a⟩ normally represents in all dialects a low back unrounded vowel, both short and long. The preferred transcriptions for these sounds are /ɑ, ɑː/, and transcriptions using /a, aː/, which would suggest a front vowel, should be avoided.[1,2] Examples of short and long ⟨a⟩ are: *hara* ‘hare’, *hāra* ‘hoary’ wk. Before nasal consonants short (a) is alternatively written as ⟨o⟩, for example, *mann*, *monn* ‘man’. The choice of symbol is subject to variation according to date and dialect, see §§5.3–6. The variation in spelling suggests that *a* was rounded before a nasal, and it may also have been slightly raised.[3] However, it probably remained an allophone of /ɑ/.[4]

[1] For a contrary view see Kuhn (1961: 524).

[2] Colman (1983a) argues that there was only one low short vowel phoneme in OE, that is, that [æ] and [ɑ] were allophones of the same phoneme, whilst Ross (1951) argues that the phonemic contrast may have been restricted to WS, cf. Pilch (1970: §4.7). These conflicting claims indicate, at least, that any contrast which existed, and it may be safest to start off from the assumption that one did, was somewhat unstable. It is, of course, lost by ME.

[3] Campbell (1959: §32) suggests that (a) normally represented an ‘open advanced back’ vowel, presumably [ɑ̈] or [ɑ̈ː], while ⟨a⟩ before a nasal represented an ‘open full back’ vowel, presumably [ɑ]. It seems unlikely that *a* was so far centralized in forms such as *dagas* ‘days’ and very probable that the following nasal would cause slight raising, as it had done in Gmc, see Bülbring (1902: §30).

[4] But some problems are caused by the status of the vowel in metathesized forms such as *orn* ‘ran’ pa.ind.sg., *born* ‘burn’ pa.ind.sg. Compare here Nbr *barn* ‘child’ and see further Hogg (1982b), cf. Kuhn (1961).

2.14 (o), except for those instances discussed in §2.13, represents a mid back rounded vowel, both short and long. The normal transcriptions for these sounds are /o, oː/, and it may be assumed that they corresponded exactly in height to the mid unrounded front vowels, see §2.11. Examples of short and long ⟨o⟩ are: *god* ‘god’, *gōd* ‘good’.[1]

[1] Note here the frequent distinction in some mss., such as ÆHom(R), between *god* ‘God’ and *good* ‘good’.

2.15 ⟨u⟩ represents in all dialects a high back rounded vowel, both short and long. The normal transcriptions for these sounds are /u, uː/. Examples of short and long ⟨u⟩ are: *dun* ‘dun’, *dūn* ‘hill’.

2.16 ⟨y⟩[1] represents in all dialects a high front rounded vowel, both short and long, contrasting in roundness with /i/ and in frontness with /u/. The normal transcriptions for these sounds are /y, yː/. Examples of long and short ⟨y⟩ are: *syll* ‘sill’, *sȳll* ‘pillar’. In Kt *y* merges with *e* after about 900, see §§5.194–5, and in LWS *y* increasingly merges with *i* by a complex series of changes, see §§5.170ff.

[1] For some discussion of the origin of this graph, see Campbell (1959: §42 and n2).

2.17 ⟨oe⟩, properly a digraph,[1] represents in all dialects a mid front unrounded vowel, both short and long, contrasting in roundness with /e/ and in frontness with /o/. The preferred transcriptions for these sounds are /ø, øː/, since phonologically these vowels must have been equivalent in height to those represented by ⟨e, o⟩. Because of their similarity to the orthography, however, /œ, œː/ are sometimes used. Examples of short and long (oe) are: Ps(A) *doehter* ‘daughter’, *ōēhteð* ‘persecute’ 3sg.pr.ind. In most dialects both short and long vowel are unrounded (> /e(ː)/) during the period, the short vowel unrounding first. In WS unrounding takes place by the time of the earliest texts; in Kt during the ninth and tenth centuries; in Angl the long vowel at least persists until the end of the period.

[1] In some Kt charters (Ch 332, 1508, Rec 6.5) the digraph is reversed, hence Rec 6.5 (2×) *bēōċ* ‘books’. Ch 332 2.2 *ġedēō* ‘make’ 2pl.pr.subj., Ch 1508 (2×) *fēō* ‘take’ 3sg.pr.subj. have the vowel of 2/3sg.pr.ind. and need not be taken as disyllabic, see Brunner (1965: §27A). *ġedēō* has the inflexion of the singular, but a plural subject. The reversal of the digraph is almost certainly restricted to Kt, so that Ps(A) 135.16 *wēōsten* ‘desert’ acc.sg. is probably to be taken as a further example of Kt scribal practice in this ms., to add to those given in Ball (1970).

2.18 Both /y(ː)/ and /ø(ː)/ were new phonemes in OE, introduced only after the operation of *i*-umlaut (§§5.74–7), and this may be the explanation of the usage in early mss., where ⟨y, oe, e⟩ are very often replaced by ⟨ui, oi, ei⟩ respectively. Naturally ⟨ui⟩ and ⟨oi⟩ can only represent sounds due to the umlaut of **u*, **o*, for example, Bede(M) *Ōidilualdo*, CorpGl 11 *buiris* ‘chisel’, MkGl(Li) 11.20 *drūiġe* ‘dry’. On the other hand, ⟨ei⟩ is used for three types: (a) the umlaut of **ea*, for example, BDS 1 *nēidfaerae* ‘necessary journey’; (b) where *ē* (= *ǣ*$_1$) is in an umlauting environment, for example, CorpGl 728 *dēid* ‘deed’; (c) where *ē* (= *ǣ*$_1$) is not in an umlauting environment. The variety of ⟨ei⟩ spellings argues strongly against the suggestion of Campbell (1959: §42) that (i) indicated that *i*-umlaut began as a process by which /i/ was epenthesized after a vowel.[1] Much simpler is the explanation that ⟨ui⟩ was an early attempt to represent the new /y/ sound, in parallel to the runic letterᚣ, and that ⟨oi⟩ was equally used to represent /ø/, see Brunner (1965: §94A). Eventually both digraphs were replaced by ⟨y⟩ and ⟨oe⟩ respectively, otherwise redundant graphs from the Roman alphabet.[2] ⟨ei⟩ spellings are less easily explained whatever hypothesis is accepted, but they are most probably due to orthographic analogy on ⟨ui, oi⟩, although cf. too CorpGl 967 *grēi* ‘grey’, see §2.39.

[1] That ⟨i⟩ must have been a diacritic is further confirmed by CorpGl *grūiit* ‘meal’ gen.sg., with doubling of ⟨i⟩ to show length of /yː/. Epenthetic /i/ could not possibly have been long.

[2] Note that in continental mss. ⟨ui⟩ is regularly used for ⟨y⟩ long after any epenthesized /i/ would have disappeared.

2.19 The interpretation of the digraphs ⟨ea, eo, io, ie⟩ has long been the subject of much controversy in OE studies, and this controversy needs to be outlined before we discuss the values represented by each digraph individually.[1]

[1] A full bibliography to this controversy is given in Kuhn (1961), supplemented by Giffhorn (1974).

2.20 It is agreed that the digraphs ⟨ea, eo, io⟩ represent the following OE developments: (1) the development of the WGmc diphthongs **au*, **eu*, **iu* respectively; (2) the sounds resulting from the operation of breaking, see §§5.16ff., on the front vowels **ǣ*, **ē*, **ī*; (3) the sounds developed by the operation of the same change on the equivalent short vowels; (4) the sounds developed by the operation of back umlaut, see §§5.103ff., on the same short vowels; (5) the development (if any) of **ǣ̆* when preceded by an initial palatal consonant, that is, *ċ*, *ġ*, *sċ*, see §§5.49–52; (6) the development (if any) of the back vowels *a*, *o*, *u* when preceded by a palatal consonant, see §§5.59ff. There is much less agreement, however, about the values which these digraphs represented in these cases.

2.21 It is also agreed that ⟨ie⟩, when it occurs,[1] represents the sounds developed by: (1) the influence (if any) of initial palatal consonants on **ē̆*; (2) the influence of *i*-umlaut on the sounds represented by the digraphs ⟨ea, eo, io⟩; (3) the contraction of originally bisyllabic *ī̆+e* sequences; (4) a small number of cases where the back umlaut of **i* does not result in the digraph ⟨io⟩, see §5.104n8. Again, there is little agreement over the value of the sounds represented by this digraph.

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[1] The digraph ⟨ie⟩ is virtually restricted to EWS. For further details see §§2.36–7.

2.22 The traditional view, as expressed by Bülbring (1902), Luick (1914–40), Campbell (1959), Brunner (1965), and a series of papers by Kuhn and Quirk (1953, 1955) is as follows.[1] It is certain that the Gmc diphthongs developed as diphthongs in OE, as in ON, OHG, see Prokosch (1939: §40a). It is therefore probable that if ⟨ea, eo, io⟩ were used to represent diphthongs from Gmc diphthongs, they would represent the same sounds in cases where Breaking exercised an effect on **ǣ*, **ē*, **ī*. Since it is inconceivable that the relevant sound changes would affect short and long vowels in quite different ways, the above diphthongs would contrast only in length with the sounds developed by the operation of breaking and back umlaut on short vowels. Hence there would have arisen a contrast between long and short diphthongs, which did not occur in Gmc.[2] Given that these digraphs normally represented diphthongs, it must be assumed that the exercise of palatal influence on **ǣ̆* resulted in the same diphthongs as represented elsewhere by ⟨ea⟩. However, where a back vowel followed the palatal consonant, as in *seċan* 'seek', the alternative ⟨ea⟩ spellings, such as *seċean*, did not represent diphthongs but showed only a diacritical use of ⟨e⟩ to indicate the palatal nature of the preceding consonant. The same holds for the use of ⟨e, i⟩ between a palatal consonant and ⟨o, u⟩, see §2.68 for examples.[3] Thus the traditional position holds that ⟨ea, eo, io⟩ always represented diphthongs both long and short except where the orthographic evidence suggests otherwise or the linguistic development is implausible (as is true of *seċean*). Similarly, ⟨ie⟩, since it is the result of *i*-umlaut of the sounds represented by ⟨ea, eo, io⟩, must also have represented a diphthong both long and short, since it is improbable that *i*-umlaut had a general monophthongizing effect.[4] And if ⟨ie⟩ by *i*-umlaut represented a diphthong, then it is reasonable to assume that it also represented a diphthong in the other cases listed in §2.21.

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[1] In conflating the opinions of these and other scholars certain minor differences between them are inevitably ignored.

[2] The Gmc diphthongs were, of course, phonologically equivalent to long vowels, but there was never any contrast in length between diphthongs.

[3] An exception may have been in the development of back vowels after an initial palatal, see §2.31.

[4] But note that in nWS the umlaut of *ēa* was *ē*, for example, *hēran* 'hear' as against EWS *hīeran*. On the other hand, EWS also has *hīran*, and LWS *hȳran*.

2.23 To the above theoretical arguments there may be added the following arguments from lOE and ME. Firstly, *ea*, when lengthened, develops as *ēa*.

The balance of probability, but no more, is that this makes it more likely that *ea* was a short partner of *ēa* rather than a monophthong. Secondly, *ĕo* and *ēo* develop in parallel in eME, as /ø/ and /øː/, contrasting with the eME developmment of *ĕ* and *ē* as /ɛ/ and /eː/, see Luick (1914: §§357, 361, 378). Thirdly, it would appear that in S dialects of ME *ea* and *ēa* develop similarly and in contrast to *ǣ̆* and *ǣ*. Fourthly, in MKt *ēa* and *ēo* sometimes develop as rising diphthongs, that is, as [jɑː], [joː], and this points strongly to an original falling diphthong in each case, see Hallqvist (1948), Samuels (1952). Here Giffhorn (1974: 98ff.) gives considerable place-name evidence to show that such stress-shift phenomena are considerably more widespread yet.

2.24 Opponents of the traditional view all begin from the same assumption, namely that it is unlikely that OE had a four-way contrast between short and long vowels and short and long diphthongs. More particularly it is noted that it is almost (but not completely) unknown for languages to show a phonemic contrast between short and long diphthongs and that furthermore no such contrast exists in ModE nor is one hypothesized for Gmc. Therefore, it is argued, such a contrast should not be hypothesized for OE except under the most pressing circumstances, which do not exist. But the area of disagreement should not be exaggerated. Thus all opponents agree with the traditional view that ⟨e⟩ between a palatal consonant and an unstressed back vowel was purely diacritical, and they also all appear to accept, with the possible exception of Stockwell and Barritt (1951: §5.2), that ⟨ēa, ēo, īo⟩ represented ‘long’ diphthongs. The fundamental point at issue, therefore, is the status of the sounds represented by the ‘short’ digraphs ⟨ea, eo, io⟩ (and ⟨ie⟩). The attacks on the traditional position can be divided into four groups, discussed in §§2.25–8.

2.25 Daunt (1939, 1952) argues that the second element of the digraphs[1] was a diacritic indicating that the following consonant was phonemically [back]. A similar view is taken by Mossé (1945: §12). Hence *weorpan* ‘throw’ = /we pan/, *liomu* ‘limbs’ = /lim̵u/, etc. But this applies only to the ‘short’ digraphs, and Daunt accepts that the ‘long’ digraphs represented true diphthongs, even in otherwise identical environments. Further, Daunt (1952: 49) emphasizes that there was probably a glide between the front vowel and the following consonant, but claims that the resulting diphthong was no more than a conditioned allophone of the relevant monophthong. Daunt’s theory clearly fails to meet all but the second argument under §2.23, and even there her position is dubious. In any case she relies on the assumption that Old Irish scribes used vowel diacritics to indicate colouring of the following consonant and the further assumption that this scribal practice was taught to and preserved by the earliest OE scribes. Neither assumption can be fully substantiated, see especially Kuhn and Quirk (1953: 147–9).[2]

[1] For the use of the digraphs ⟨ea, ie⟩ after a palatal consonant, ignored here, see §2.31. The arguments concerning this usage, although highly relevant, are of a different order.

[2] It should be pointed that Daunt's analysis is essentially prosodic in the Firthian sense, and her analysis is valuable (at least) to the extent that it demonstrates the interdependence of the short diphthongs and the following consonant in a way which is extremely difficult for any purely segmental approach. Note here Stockwell and Barritt's initial proposal (1951: 13) that 'In the case of the back allophone of /æ/...the off-glide...was a part of the articulation of the following consonant', a proposal they later rejected in Stockwell and Barritt (1955: 376).

2.26 Stockwell and Barritt (1951, 1955, 1961) and Stockwell (1958) agree with Daunt in claiming that the second element of the digraphs was diacritical, but differ in asserting that its purpose was to indicate a 'back' (= centralized and possibly lowered) allophone of the relevant monophthong. Thus it is claimed that if ⟨æ⟩ represents [æ], then ⟨ea⟩ represents [æ̈],[1] both of which are allophones of the same phoneme /æ/. Stockwell and Barritt's arguments are primarily theoretical, since their starting-point is the alleged impossibility of the four-way contrast mentioned in §2.24. Their theory meets the objections of §2.23 no more adequately than does Daunt's, and there is one further objection to be made. This is that, if [æ] and [æ̈] are allophones of the same phoneme, there should be no minimal pairs contrasting the two. But there are numerous such pairs, such as *ærn* 'house' as against *earn* 'eagle', *stæl* 'place' as against *steal* 'stall'. For further criticisms see Kuhn and Quirk (1953, 1955), Hockett (1959).

[1] [æ̈] is a retranscription of [æ], which Stockwell and Barritt take from Trager & Smith (1951).

2.27 Hockett (1959), followed by Antonsen (1972), argues, at least for WMerc as represented by Ps(A), that the digraphs represented phonemes distinct from those represented by the corresponding single graphs, thus agreeing with the traditional position against Stockwell and Barritt. But, he argues, these phonemes were central vowels rather than diphthongs. Hence ⟨io⟩ = /ɨ/, ⟨eo⟩ = /ə/, ⟨ea⟩ = /ɐ/[1] and similarly for the long members of each pair. As long as the analysis is restricted to the Angl dialects the arguments of §2.23 are met, but this cannot be so for the S dialects, and even for Angl the cases of stress-shift cited by Giffhorn (1974) raise major doubts.

[1] Hockett transcribes ⟨ea⟩ as /a/ but states that it is a low back spread (unrounded) vowel. In that case /a/ is a misleading transcription. Furthermore, the vowel (if it existed) must have been central rather than back, and it is interpreted as such here (as are /ɨ/ and /ə/).

2.28 Lass and Anderson (1975) accept the traditional view that ⟨ea, eo, io⟩ represented diphthongs, but suggest that there was no phonological contrast of length between OE diphthongs. Their claim is dependent upon the acceptance of generative phonological theory, which permits reversal of completed mergers and as such is probably unacceptable, see Weinreich, Labov and Herzog (1968: 147–8), also Lass (1983: 174–5). Another argument against this proposal concerns the relative ordering of sound changes. Lass and Anderson order back umlaut before *i*-umlaut, and hence before apocope of final *-i*, *-u* after a long syllable (see §§6.13ff.), by which, for example, **dēoru* > *dēor* 'animals'. But diphthongs due to back umlaut do not cause such loss, for example, *liomu* 'limbs'. Thus Lass and Anderson's position is internally contradictory.

2.29 The evidence from both OE and ME suggests very strongly that the traditional position is in essence correct, although the position of Daunt (1939), if correctly interpreted as a prosodic analysis, has much to commend it, see too the proposal of Stockwell and Barritt (1951) quoted in §2.25n2. Therefore we accept here that OE had a phonemic contrast between long and short diphthongs. Nevertheless, it has to be acknowledged that the least satisfactory aspect of the traditional position concerns the long ~ short contrast. Since the so-called long diphthongs in large part derived without significant alteration from Gmc diphthongs, it is implausible to suggest that their length was in any crucial respect altered. They must therefore have remained equivalent in length to long vowels, as in Gmc, see §2.22 and n2, that is to say, they must have been bimoric. If that is so, then the so-called short diphthongs, which are derived from short vowels in Gmc, must have been monomoric. Thus long and short diphthongs would have the same configuration V_1V_2, but in the former cases that configuration would be dominated by two morae, in the latter cases by only one mora, see Lass (1983: 172–7; 1984: 253–7). The normal phonological case, of course, is exemplified by the long diphthongs, whereas the short diphthongs are somewhat unusual. It seems preferable to recognize this situation by transcription conventions, and therefore in the remainder of this work in both phonemic and phonetic transcriptions long diphthongs will be represented without indication of length, for example, /eo/, whilst short diphthongs will be indicated by a breve over both elements, for example, /e͝o/. It is recognized, however, that this conflicts with the traditional conventions, by which long diphthongs are marked, and the traditional conventions are therefore, and for the sake of clarity only, respected in graphemic or italicized representations, hence ⟨ēo⟩, *ēo* are equivalents of /eo/, and ⟨eo⟩, *eo* equivalents of /e͝o/. Some further clarification of the traditional position is necessary in three respects: (1) the status of the second elements of diphthongs in all contexts except after a palatal consonant; (2) the values represented by the digraphs when preceded by a palatal consonant; (3) the values represented by ⟨ie⟩. (1) and (2) are discussed in §§2.30, 31, (3) in §2.36.

2.30 Early spellings, such as ⟨iu, eu, æu⟩, see §§2.32–4, imply that originally the second element of all diphthongs was a high back rounded vowel, but this element, possibly to be transcribed as nonsyllabic [u], was soon to be lowered to a mid or low vowel, according to the height of the syllabic element. It seems most probable that there was eventually a reduction of the second element to an unstressed centralized schwa vowel [ə], but this process must have varied from dialect to dialect, possibly being earliest in Angl and least common in Kt. Equally probable, perhaps, is that full and reduced forms were in almost free variation, subject to such influences as speech tempo. The precise value of these elements seems, therefore, impossible to determine.

2.31 When *ē̆* or *ǣ̆* were preceded by a palatal consonant, they developed in WS as *ī̆e*, *ē̆a* respectively. The phonetic conditions for this shift are quite different from those for breaking, see §5.49 for discussion. When a palatal consonant was followed by a back vowel, any diphthong which developed is likely to have been rising, see §§5.59–70. In both types the question of the reality of the supposed sound change is difficult and perhaps even insoluble. For discussion of the status of the digraphs and what values they might have represented in these contexts see the sections cited immediately above for some tentative conclusions.

2.32 Except where ⟨i⟩ is a diacritic, ⟨io⟩ represented a diphthong both short and long, with prominence on the first element. The normal transcription for these sounds would be /ıŏ, io/, although /ıə̆, iə/ may be preferable, see §2.30. However, both diphthongs are subject to considerable change during the OE period, see §§5.155ff., and neither consistently remains in its original form after the ninth century. In all dialects except Nbr the diphthongs fall together with those represented by ⟨ē̆o⟩, see §2.33. In early texts ⟨iu⟩ spellings occur in a minority of cases, which suggests an earlier pronunciation of /ıŭ, iu/. Examples of *īu* from Gmc **iu* are: CorpGl *ġeþīudde* ‘join’ pa.ind.sg., CorpGl *þīustra* ‘darkness’ acc.pl., LRid *flīusum* ‘fleece’ dat.pl. The only examples of *ĭu* are due to breaking and are: LVD † *Iurminburg*, KSB12 † *Iurmenrīċ*(*ing*).[1]

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[1] In BDS 1 *uuiurthit* ‘become’ 3sg.pr.ind. ⟨iu⟩ most probably represents /y/, being an inverted form of ⟨ui⟩, see §2.18, presumably to avoid **⟨uuui-⟩. /y/ is due to rounding of /i/ rather than *i*-umlaut, see §5.31n2.

2.33 Except where ⟨e⟩ is a diacritic (eo) represented a diphthong both short and long, distinguished from ⟨ī̆o⟩ only by the height of the first element. The normal transcriptions for these sounds are /eŏ, eo/, see §§2.30, 32. Examples of short and long ⟨eo⟩ are: *cneowe* ‘knee’ dat.sg, *cnēowe* ‘know’ pa.subj.sg.[1] For the later history of *ē̆o* and its merger with *ī̆o* see §§5.155–62. As with *ī̆o*, there are a few early spellings with ⟨u⟩ as second element, suggesting an earlier pronunciation /eŭ, eu/. Examples of *ēu* from Gmc **eu* are: EpGl 940 *stēupfæder* ‘stepfather’, EpGl, ErfGl 726 *trēulesnis* ‘faithlessness’. Short diphthongs due to breaking or back umlaut rarely have ⟨-u⟩: CollGl 12.6 *eutende* ‘eat’ pres.part.,[2] Bede(M)† *Ēumer* (< **Euhmer*), LVD† *Friuþuulf* (< **Friþu-*).

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[1] *Cnēowe* has the vowel of the ind.

[2] *Eutende* has the vowel of the inf. **eutan*, see Li, Ru2 *eatta*.

2.34 Except where ⟨e⟩ is a diacritic, ⟨ea⟩ represented a diphthong both short and long, distinguished from *ī̆o*, *ē̆o* by both the height of the first element and the height and probable unrounding of the second element (where this is not a reduced vowel). The first element is probably equivalent to the sound represented by ⟨æ⟩ elsewhere, see below for confirming spellings. The normal transcriptions for these sounds are /æ̆ɑ, æɑ/, since the second element was certainly back when not reduced. On the other hand, some early spellings, see below, and the ME development of at least the long diphthong to /ɛː/, see Jordan (1974: §81),[1] make it possible that a more accurate phonetic transcription might be [ɛ̆ɑ]. Examples of short and long ⟨ea⟩ are: *seah* ‘see’ pa.ind.sg., *nēah* ‘near’. As with *ī̆o*, *ē̆o* early mss. have occasional spellings confirming the development from /æu/, but they also often suggest a slightly higher first element, as discussed immediately above. The most common of these early variants is ⟨eo⟩, examples of *ēo* from Gmc **au* being: CorpGl 1402 *ġefrēos* ‘freeze’ pa.ind.sg., CorpGl 187 *ēorsċripel* ‘earscraper’; an example of *ĕo* due to breaking is: CorpGl 545 *seorwum* ‘device’ dat.pl.[2] An older spelling is ⟨ǣo⟩, examples from Gmc **au* being: Bede(M)† *ĀĒodbaldum*, *ĀĒdbaldo*, CorpGl 1117 *ġenǣot* ‘companion’, LVD† *ĀĒostoruini* (alongside *Ēosturuini*). The spelling ⟨æu⟩ is seen in Rune48 *bæurnæ* ‘son’ dat.sg.[3] Occasional ⟨æa⟩ spellings can be observed throughout the period, but they are without phonological significance except in so far as they confirm the pronunciation of the first element.

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[1] Jordan (1974: §58) suggests that even in the case of the short diphthong the first element might have been slightly raised in S dialects at least, see Hallqvist (1948: 9–46). On the other hand, it may be that we are dealing with a qualitative difference between short and long *æ*, see §2.12.

[2] Ps(A) *feodrum* ‘father’ dat.pl. and similar forms in the same ms. should not be taken here, see §5.45 and n1.

[3] In *bæurnæ* breaking is found despite the Nbr provenance. It is possible that the word is a form of *beorn* ‘prince’, see Page (1973: 145), in which case it should be taken under §5.44n1.

2.35 The remarks of §2.34 probably apply also to instances of ⟨ē̆a⟩ due to the influence of palatal consonants on **ǣ̆*. Even if the phonetics of that change were different from that of, say, breaking, see §5.49, by the time of the written texts it would seem likely that ⟨ea⟩ here represented sounds which may be transcribed as something like [ɛɑ̆, ɛɑ, and these sounds must have been no more than allophones of the phonemes described in §2.34. Indeed, given the comments there it is possible that they became phonetically identical. Examples of short and long ⟨ea⟩ after palatal consonants are: *ġeare* 'entirely', *ġēare* 'year' dat.sg.

2.36 Disagreement about the values represented by the digraph ⟨ie⟩ in part runs parallel to the disagreement over the values represented by the other digraphs. Therefore the arguments presented in §§2.22–9 would, other things being equal, hold also for ⟨ie⟩. Thus we may accept that originally, but see §2.37, this digraph represented a diphthong both short and long. However, there is further disagreement over the precise values of the diphthongs. The oldest view, expressed by Bülbring (1902: §46), Brunner (1965: §41), Campbell (1959: §39), interprets the digraph directly as /ɪĕ, ie/.[1] In favour of this view is the contraction of disyllabic /ie/, for example, *sīe* 'be' pr.subj.sg., and possibly the development of **ē̆* > *ī̆e* after palatal consonants. Against this view is the early monophthongization of *ī̆e* > *ī̆*, *ȳ̆*, see §2.37. Another view, found in Luick (1914–40: §191), is that the digraph represented /ɪə̆, iə/ with some rounding of the second element. This view has much to recommend it. Lass and Anderson (1975: 122–7) have suggested that ⟨ie⟩ represented /ɪŭ, iu/.[2] The view is reasonable, but it is doubtful that the second element could have been [u], which in WS is regularly lowered to /o/, see too §2.40. Colman (1985) argues that ⟨ie⟩ which is the product of *i*-umlaut represents /ɪy̆, iy/.[3,4] This view, which must be construed as phonemic rather than phonetic, appears to be most consistent with the chronological and dialectal spread of *ie*, see §2.37, although difficulties with the other sources of ⟨ie⟩ spellings remain, see n4. Examples of short and long ⟨ie⟩ are *nieht* 'night', *nīehst* 'next'.

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[1] Brunner takes the ⟨i⟩ of ⟨ie⟩ after an initial palatal consonant as purely diacritical.

[2] But without phonological contrast of length, see §2.28.

[3] The same conclusion was earlier drawn by McLaughlin (1979), but his arguments are rejected by Colman.

[4] Colman holds essentially the same position as Brunner, see n1, with regard to ⟨ie⟩ after a palatal consonant, and rejects the view that bisyllabic /ie/ ever became diphthongal. But since she admits (1985: 10–11) the possibility that /ɪy̆, iy/ became at some fairly early stage [ɪə̆, iə], these cases could fall in with the above. The use of ⟨ie⟩ to indicate breaking or back mutation is only an inverted spelling for ⟨i⟩, *contra*, for example, Campbell (1959: §299), see §§2.37, 5.24n6, 5.104n8.

2.37 The spread of ⟨ie⟩ is extremely restricted, it being used as a digraph only in EWS. Even there it is clear that ⟨ie⟩ no longer represented a diphthong, even if it did so originally, as suggested in §2.36, see, however, §§5.164, 171. The evidence of the early texts is that by this time the original sounds had monophthongized, in most environments merging with /i(ː)/, less commonly with /y(ː)/, for full details see §§5.163ff. The main justification for this claim is that not only do words with earlier *ī̆e* became spelled with ⟨i⟩, but also words with original *ī̆* become, by confusion, spelled with ⟨ie⟩, for example, *hiene* alongside *hine* 'him'. In LWS there are no ⟨ie⟩ spellings but the development there is different for except in a palatal environment *ī̆e* normally merges with *ȳ̆*. Hence early *hīeran* 'hear' gives EWS *hīran*, LWS *hȳran*. For further discussion of these complex matters see again §§5.163ff. Thus not only has the original diphthong disappeared by the end of the ninth century, the time of the EWS texts, but in all dialects except EWS ⟨ie⟩ regularly occurs only as a representation of a disyllabic sequence.[1]

[1] This is true of Ps(A) *onsīen* 'face', *fīenda*, *-um* 'enemy', see Campbell (1959: §201.3n2 and refs).

2.38 It is possible that a further series of diphthongs arose during the OE period when final /j, w/ vocalized to [i, u], see §§7.69ff. It is impossible to determine the length of the resultant diphthongs from the texts, although theoretically it would be expected that they would be quantitatively equivalent to the original long diphthongs. However, the ME developments are significant in that where short and long monophthongs develop differently, as in S *a* > *a*, *ā* > Q̄, the first elements of these putative diphthongs develop, at least in the first instance, according to whether they are from originally short or long monophthongs, thus OE *dæġ* > *dai*, *grǣġ* > *grei*, see Luick (1914–40: §§372–3). Therefore we have the choice of claiming that diphthongization has taken place, in which event there is the theoretically improbable consequence that both short and long diphthongs arise, for example, /ǣ̆i, æi/, or claiming that diphthongization did not take place, following Colman (1983b), who adduces further evidence to support this analysis.[1] We accept, with Colman, however, that in the case of *iġ* sequences the development would be directly to *ī* (with shortening to *i* in unstressed syllables).

[1] Colman's arguments are supported by two ME developments. Firstly, when the diphthongs *ei* and *ai* do appear, then their subsequent history is different from that of monophthongal /e, a/, since they merge together, see PDE *way* (< OE *weg*), *day*. Secondly, once diphthongization takes place contrastive length is lost, as can be seen by Orm's failure to distinguish length in these cases, see Luick (1914–40: §§372A2, 373A1). Jordan's suggestion (1974: §87R1) that *daȝȝ* represented [daiˑ] cannot be accepted.

2.39 In the case of /j/ the processes discussed in §2.38 could, of course, only take place after front vowels, and in all cases the normal spelling representation of the sequences is ⟨iġ, eġ, æġ⟩. Typical examples are: *twīġ*[1] 'twig', *wīġ* 'war', *weġ* 'way', *wrēġ* 'accuse' imp., *dæġ* 'day', *grǣġ* 'grey'. In both the early glossaries and Kt ⟨-i⟩ spellings are common, and ⟨i⟩ for ⟨iġ⟩ is quite widespread, hence Mk(WSCp) 13.28 *twī*, AldV 3.1.72 *wī*(*bora*) 'standard-bearer', OccGl 49.8.49 *wei*, 30.14 *wrēi*, Ch 1510 (5×) *dei*,[2] CorpGl 967 *grēi*.[3] In LWS and lNbr especially the compromise spellings ⟨-ēiġ, -ǣiġ⟩ are found, but note CorpGl 2093 *seiġn* 'sign', 850 *grēiġ*.

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[1] It follows from the remarks in §2.38 that the result of vocalization of *iġ* is *ī*, not *ĭ*.

[2] With Kt *e* for *æ*.

[3] With Angl *ē* for *ǣ*$_1$.

2.40 In the case of /w/ the same processes arise, except that the /w/ is analogically restored, see §7.72, and that it is always preceded by a long vowel or diphthong. Here too the early glossaries and Kt show ⟨-u⟩ spellings, for example, ErfGl 610 *mēu* for *mǣw* 'gull', CorpGl 2 *stōu* for *stōw* 'place'.

2.41 From the above discussion it might seem possible to postulate an overall vowel and diphthong system for OE, but this would be to ignore many differences which occur both dialectally and diatopically. For an attempt to describe the changing relationships between dialects and over time see Kuhn (1961). The following diagrams attempt only to present the major phonological contrasts potentially present in OE; they do not claim to represent in any way the actual state of affairs in any dialect at any time.

(a) Long and short vowels
i(ː) y(ː) u(ː)
e(ː) ø(ː) o(ː)
æ(ː) ɑ(ː)

(b) Long and short diphthongs
iy ı͝y
eo e͝o
æɑ æ͝ɑ

2.42 The above remarks apply only to the vowels and diphthongs of fully stressed syllables. In unstressed syllables and probably also in secondary-stressed syllables the position is rather different.[1] It is therefore preferable to distinguish the phonemic system operating in unstressed syllables from that operating in primary-stressed syllables.

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[1] For details of the stress system see §§2.84–91.

2.43 In unstressed syllables only short vowels occur, even in the earliest period, and these vowels are represented by ⟨i, e, æ, a, o, u⟩. Except for

⟨o⟩ and ⟨u⟩ these graphs may be taken to represent the same values as in stressed syllables. In the earliest Nbr texts ⟨u⟩ predominates over ⟨o⟩, but in the Merc glossaries both ⟨u⟩ and ⟨o⟩ can be found. In later texts ⟨o⟩ is increasingly predominant in the S, but ⟨u⟩ persists in Nbr especially. This suggests that lowering of Gmc **u* to /o/ was in origin a S change, which did not spread completely to Angl texts, where the sound often remains as /u/, see §6.56.[1] In Kt and LWS /ɑ/ and /o/ have certainly fallen together in a phoneme whose precise values cannot be determined, perhaps something like /ɔ/. Although in the written language the front unstressed vowels may have been distinguished at the beginning of the period with some degree of accuracy, especially in Merc, but see §§6.49, 51, there must have been a very early merger, not later than the eighth century, perhaps as /ɛ/.[2] However, unstressed *i* remains in certain environments, notably when protected by a following palatal consonant, for example, *meahtiġ* 'mighty', see further §§6.50–1. By the eleventh century the front and back vowels were becoming thoroughly confused, which suggests a reduction in the unstressed vowel system to simply /ə/, and although this is not seen in the best LWS texts, the process of reduction may already have been at work in EWS, see Bately (1980: xliv).

[1] It should be noted that there were never three unstressed back vowel phonemes. Rather, whatever the dialect or date, there was at most a contrast between, on the one hand, /ɑ/, and, on the other hand, /u/ or /o/ (not both).

[2] Kuhn (1961) transcribes [ɛ] and [ɔ] as [ə] and [ɨ] respectively. In the present state of our knowledge the question is largely one of taste.

2.44 Syllables with secondary stress show a compromise between the behaviour of fully stressed and unstressed vowels. Long vowels are regularly reduced to short vowels and diphthongs are both lowered to *ea* (< *io*, *eo*) and reduced to *a*. Examples of the reduction of diphthongs are: *sċiptearo*, *sċiptaran* 'pitch' alongside *teoru* 'tar'. Both original short vowels and short vowels due to the above processes of reduction can then be further reduced to the unstressed variants discussed in §2.43. It follows from the above that long vowels are not found in syllables which are not primary-stressed.[1] Therefore in this work originally long vowels in secondary- or weak-stressed syllables will not be marked for length.

[1] The situation is much more complex than suggested here. It might be more accurate to state that syllables which originally had secondary stress regularly become weak-stressed during the OE period, thus accounting for the processes described above, see §§2.83ff. Such reduction would have depended upon a number of factors, including speech tempo and other rarely recoverable variables, as well as date of the text. I would not therefore wish to suggest that a line such as Beo 1523a *þæt se beado-lēoma* did not have a long diphthong in *lēoma*. On the other hand, by §2.43 *se* could not possibly have ever had a long vowel (except if subject to emphatic stress).

2.45 Of the letters in the OE alphabet, the following were normally used to represent consonants: ⟨b, c, d, f, g, h, k, l, m, n, p, r, s, t, þ, ð, w⟩, where ⟨w⟩ = ⟨ƿ⟩, see §2.2. In addition ⟨i⟩ was sometimes used to represent a consonantal value alongside its more usual representation of a vowel, and ⟨u⟩ and ⟨uu⟩ are replacements for ⟨w⟩, especially in Nbr. ⟨x⟩ and ⟨z⟩ occur only rarely, see §§2.51, 2.65n1 for discussion of their values. Two digraphs are in common use: ⟨sc⟩, which represents an earlier sequence of two segments, and can still be so used, as in *ascian* 'ask'; ⟨cg⟩, which is mostly used to represent earlier or existing geminate consonants, see §§2.61, 67. Other digraphs are rare, except in the earliest texts, and the most frequent of these are ⟨ch, th⟩ see §§2.60n1, 59 for examples.[1] Lengthening of consonants is indicated by doubling, for example, ⟨dd⟩.

[1] Some early texts have ⟨qu⟩ for initial /kw/, for example, EpGl 661 *quiða* 'womb'.

2.46 OE had the following principal classes of consonants: stops, fricatives, sibilants, affricates, nasals, liquids, approximants.[1] The feature of [voice] was phonologically contrastive for stops and affricates, whilst [length] was contrastive for all classes except approximants, but not necessarily contrastive for all members of each class. At one stage long consonants must have occurred both medially and finally, but by the period of the written texts they only occurred intervocalically over syllable boundaries. They are therefore analysed here as geminates, see §2.78(1) for further discussion of their status and distribution. OE had four contrasting points of articulation: labial, dental, palatal, and alveolar, but it should be noted that labial includes both bilabial and labiodental articulations, see §2.54 for some minor reservations on this noncontrastiveness. Dental could be replaced with equal accuracy by the term alveolar, since there is no satisfactory evidence which might enable us to determine the place of articulation more closely. Of these contrasts, the most peripheral is palatal articulation, which is most usually an allophonic variation of velar articulation. There was also a glottal fricative [h], see §2.60, but there is no direct evidence for a corresponding glottal stop.[2]

[1] Strictly speaking, sibilants form a subclass of fricatives and liquids a subclass of approximants, see Ladefoged (1982: 261–2; 61–2). Their separation here is largely a matter of convenience, but at least in the liquids and approximants important phonological differences exist between the two subclasses.

[2] It is sometimes claimed that the alliteration of vowels in OE poetry must be due to the presence of an initial glottal stop. Although the question of the existence of such a stop is not ultimately decidable, it must be said that the basis for postulating such could scarcely be frailer, and the evidence of prominence shift shown in later place-names such as *Yalding* argues against it.

2.47 The OE voiceless stops show a three-way contrast in point of articulation, with no contrastive palatal stop, although there could have been a period before that of the earliest texts when there was a separate palatal stop phoneme, see §2.65. All voiceless stops show a phonological contrast of length.

2.48 The voiceless labial stop was represented by ⟨p⟩,[1] and since it must have been bilabial it is transcribed as /p/. PIE */b/, which develops as Gmc */p/ by Grimm's Law, was extremely rare in initial position and far from common elsewhere, so /p/ is relatively uncommon in OE also, especially initially, where it is most commonly found in loan-words, see Kluge (1891: §10.2).[2] Examples of /p/ initially, intervocalically and finally[3] are: *pōl* 'pool', *grīpan* 'grip', *sċip* 'ship'. Intervocalically geminate forms are found, examples of /pp/ being: *hoppian* 'hop', *steppe* 'step' pr.subj.sg., against *hopian* 'hope', *stepe* 'step' (n.).

[1] For other, rare, uses of ⟨p⟩, see §2.58n1.

[2] The loans, of course, may be very early, of CGmc origin. Many other forms with initial /p/ are of uncertain origin, see Holthausen (1934: pæþ), Onions (1966: path). Note also the rune name *peorþ*, see Page (1973: 79–80).

[3] Similar examples will be given for each consonantal phoneme except where otherwise stated. For a fuller exemplification of the distribution of OE phonemes see Moulton (1954: 21–9) and, especially for Merc but essential for OE generally, Kuhn (1970).

2.49 The voiceless dental stop was represented by ⟨t⟩,[1] and this is normally transcribed as /t/. Examples of /t/ are: *tōþ* 'tooth', *metan* 'measure', *ġeat* 'gate'. Examples of /tt/ are: *hātte* 'is called', *sette* 'set' 1sg.pr.ind., against *hāte* 'hotly', *sete* 'set!'.

[1] For other, extremely rare, uses of ⟨t⟩, see §2.59n1.

2.50 The voiceless velar stop was represented by both ⟨c⟩ and ⟨k⟩. The former graph, although by far the more frequent, is ambiguous, representing both the voiceless velar stop and a voiceless affricate, see §2.65. Despite the fact that ⟨k⟩ would be unambiguous, it is much less frequently used, and is only very commonly found before *y*, for example, *kyning* 'king' alongside *cyning*. In Rul ⟨k⟩ predominates over ⟨c⟩ when a front vowel follows, see Bülbring (1899b), Kuhn (1970: 25), which might represent an attempt at disambiguating the symbols, although ⟨k⟩ is often used when ⟨c⟩ would be equally unambiguous, for example, *knēorisse* 'generation', *krist* 'Christ'.[1] Since the primary allophone of this consonant was undoubtedly velar rather than palatal, the usual transcription is /k/. Examples of /k/ are: *cuman* 'come', *lōcian* 'look', *bōc* 'book'. Examples of /kk/ are: *brocces* 'badger' gen.sg., *locca* 'lock, curl' gen.pl. against *brōces* 'affliction' gen.sg., *loca* 'lock'. The only possible orthographic evidence which might suggest that there was a palatal allophone of /k/, that is, [c], before front vowels comes from the Ruthwell Cross, where the symbol ᛤ is used for /k/ before a front vowel in contrast to ᛣ which is used elsewhere. Thus we find RuthCr *k̄yninc* ‘king’, *unk̄et* ‘us two’ against *krist*, *kwōmu* ‘they came’, see Page (1973: 152), Campbell (1959: §427n1). But Ball (1988: 115–16) argues convincingly that the two runes are merely allographs of the same grapheme, without phonological significance, against, for example, King (1986: 60–1). Thus textual evidence for a palatal allophone of /k/ is at best doubtful.

2.51 When the cluster /ks/ occurs, this is normally represented by ⟨x⟩, for example, *feax* ‘hair’, *fox* ‘fox’. Rarer spellings of the same cluster are: ⟨cs, cx, hs, hx, xs⟩, examples being: *æcs, rīcxian*, *weahsan*, *wihxð*, *æxs* for more usual *æx*, etc., see Cosijn (1888a: §§131, 137, 144). Those spellings with ⟨h⟩ presumably reflect an early stage of OE when the sound change of /xs/ ⟩ /ks/, see §§7.4–9, had not yet taken place or was not yet sufficiently advanced to be recognized orthographically.

2.52 The OE voiced stops, although they parallel the voiceless stops in having a three-way contrast in point of articulation and no palatal stop, are considerably more restricted in distribution than their voiceless counterparts, only the dental voiced stop having the full range of distribution. The voiced labial stop contrasts with the labial fricative only initially, and it is doubtful whether the voiced velar stop and the voiced velar fricative ever contrasted phonemically in OE, see §§2.53–5, 78(3), for further details. Length, however, is contrastive for all three stops, and in the case of the labial and velar stops that determines the alternation between fricative and stop.

2.53 The voiced labial stop was represented by ⟨b⟩. This stop contrasted with /p/ only in voice, and is hence transcribed as /b/. The stop developed from Gmc */b ~ β/, and stop articulation occurred only initially, after nasals and in gemination.[1] Examples of /b/ are: *bindan* ‘bind’, *climban* ‘climb’, *lamb* ‘lamb’, *sib(b)* ‘relationship’. Examples of /bb/ are *habban* ‘have’, *swebban* ‘kill’. Initially /b/ contrasted with /f/, as in *bindan* against *findan* ‘find’, and after degemination of final consonants the same contrast can be found finally, for example, *web(b)* ‘web’ against *wef* ‘weave!’. Medially geminate /bb/ contrasts with the marginal geminate /ff/, see §2.58, but there is also a regular alternation between /bb/ and non-geminate /f/ (=[v]), for example, Ps(A) *habbað* ‘they have’ against *hafað* ‘he has’.

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[1] It is possible that the choice of ⟨c⟩ or ⟨k⟩ in Rul is on a lexeme-by-lexeme basis, hence given *cuman* ‘come’ we also find *cymende* ‘coming’. This would reduce the efficiency of any putative distinction.

[1] Exceptionally /b/ appears to occur medially in the pet-name † *Saba*, cited and discussed in Clark (1992).

2.54 In the Merc glossaries especially, ⟨b⟩ is also used to represent Gmc *[β], which was in the process of merging with [v], see §7.55. The use of ⟨b⟩ is most consistent in EpGl, closely followed by ErfGl, and is less regular in CorpGl.[1] Examples are: EpGl, ErfGl 468, CorpGl 951 *sċēabas*, *sċēbas*, *sċēabas* 'sheaves', EpGl, ErfGl 635 *salb* 'ointment' against CorpGl 1272 *salf*.[2] In eNbr texts ⟨b⟩ is normally replaced by ⟨f⟩, but note CædH(M) 6 *heben* 'heaven' alongside 1 *hefaen-*, CædH(L) *hefen*, LRid *ob* 'from' (2×). Similar examples in Bede(M) are: † *Ælbfled*, † *Ġebmund*, † *Ġebrin*, † *Suǣhardo*, † *Cnōbheri*. The slightly later LVD has ⟨b⟩ rarely, for example, † *Cnobualch*. Otherwise ⟨b⟩ for Gmc *[β] is extremely rare, examples being CP(C) 180.6 *frēbranne* 'comfort', CP(H) *wēobud* 'altar' (4×, also CP(C)), *nǣbre* 'never' (5×).[3] An exception to this is found in the mid ninth-century Kt charters, where ⟨b⟩ is common alongside ⟨f⟩, for example, Ch 1200.3 *hlābard* 'lord', 8 *ġib* 'if', Ch 1195.2 *ob* 'from', 3 *aġiaban* 'give', 4 *hlāba* 'loaves', 8 *erbum* 'heir' dat.pl., Ch 1197.20 *erbe*, 17 *Luba*, 20 *libġendes* 'living', 23 *hiabenliċe* 'heavenly', Ch 332.16 † *Īab*, note also Ch 1200.7 *hebfað* for *hebbað* 'they have'. Despite the apparent accuracy of these spellings, their isolated nature and the frequency of ⟨f⟩ spellings in the same or contemporaneous texts suggests that they are no more than deliberate archaisms which do not reflect the phonology of the dialect. The consistency of the spellings in EpGl, ErfGl, however, indicate that at that time, possibly only in Merc, [β] was still an allophone of /b/ rather than /f/. Soon afterwards [b] and [β] must have split, the latter becoming an allophone of /f/, see §2.58. Before the time of the split it would have been possible for minimal pairs contrasting /b/ and /bb/ to have existed, such as **haβað* ~ *habbað*, see §2.53.

[1] But Med 5.10, closely related to CorpGl, has no such examples of ⟨b⟩.

[2] For a listing of forms and discussion, see Chadwick (1899: 232–40), also Wynn (1956: §109), Pheifer (1974: §69).

[3] In *wēobud* ⟨b⟩ may represent [b], see Campbell (1959: §461n3), and *nǣfre, nǣbre* is of uncertain etymology. Other forms are probably Latinisms, see Brunner (1965: §191A2), Cosijn (1888a: §130), which leaves only *frēbranne* as reliable. Note, however, poetical (GenA, Exo) *tiber* 'sacrifice'.

2.55 The voiced dental stop was represented by ⟨d⟩.[1] it contrasted only in voicing with /t/ and is hence transcribed as /d/. Examples of /d/ are: *dæġ* 'day', *rīdan* 'ride', *tīd* 'time'. Examples of geminate /dd/ are: *ġebedda* 'bed-fellow', *lǣdde* 'he led' against *ġebeda* 'prayer' gen.pl., *lǣde* 'I lead'.

[1] For other, early, uses of ⟨d⟩, see §2.59.

2.56 The voiced velar stop was normally represented by ⟨g⟩, but this graph had several different values, paralleling the status of ⟨c⟩, see §2.50. Thus

⟨g⟩ represents, in addition to a velar stop, nonsyllabic [i] (§2.39), a voiced velar fricative /ɣ/ (§2.61), and a palatal approximant /j/ (§2.76), see also §2.65. The voiced velar stop was doubtless parallel to /k/ in that the possibility of velar ([g]) and palatal ([ɟ]) allophones would exist, see §2.50, but its overall phonemic status is much more uncertain. This stems from the restricted distribution of the stop. It is generally accepted that the voiced velar stop occurred after nasals and in gemination, for example, *singan* 'sing', *sugga* 'hedge-sparrow'. There is disagreement, however, over its existence initially. Brunner (1965: §206.8) and Moulton (1954: 24–5; 1972: 152–5) hold that initial *g* was a stop, whereas Girvan (1931: §214) and Campbell (1959: §50.4) believe that in eOE initially ⟨g⟩ represented a voiced velar fricative which developed as a stop by the end of the period. The evidence of palatalization shows that initial ⟨g⟩ must have represented a fricative at that time, see §§7.17(1),[1] and the negative evidence of the failure of the Ruthwell rune-maker to distinguish between initial and medial *g* (the latter certainly a fricative) strongly suggests that the stop was not developed until a fairly late stage, as Girvan and Campbell suggest.[2] Since the voiced velar stop and the voiced velar fricative were in complementary distribution throughout the period, it would seem reasonable to analyse them as allophones of the same phoneme, see Kuhn (1970: 33–5) and, for a contrary view, Moulton (1954: 24–7). On the other hand, the nature of the phoneme is more difficult to ascertain. In a diachronic context it seems most profitable to consider the phoneme to be /ɣ/, but for a synchronic analysis of OE it might be preferable to analyse the phoneme as /g/. On the other hand, clarity of exposition is considerably enhanced by analysing instances of the velar stop as /g/ and instances of the fricative as /ɣ/, despite their complementary distribution, and this practice will often be followed here except that examples of ⟨g⟩ indicating a velar consonant are to be found under /ɣ/ in §2.61.[3]

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[1] For two contrary views see Luick (1914–40: §633), Lass & Anderson (1975: 134).

[2] But Campbell's (1959: §429 and n) appeal to alliterative practice is by no means conclusive.

[3] For further discussion of this problem see §§2.78(3), 7.68.

2.57 The OE fricatives show a three-way contrast in point of articulation, namely labial, dental, and velar. Although both a voiceless and a voiced palatal fricative may have existed at some time, the former does not contrast with the voiceless velar fricative and the latter is more revealingly classed as an approximant, see §§2.60, 75–6 for discussion. The contrast of [voice] exists only for velar fricatives; elsewhere [voice] is allophonic, see J.M. Anderson (1988b) for a fuller discussion of the phonological status of [voice] with respect to fricatives.

2.58 The labial fricative was normally represented by ⟨f⟩.[1] At the beginning of the period it is possible that this fricative was always voiceless, but it soon became voiced between voiced segments, see §§7.54–8. Since the voiced fricative which thus developed was originally distinct from the [β] represented by ⟨b⟩, see §2.54, the fricative represented by ⟨f⟩ must have been labiodental [v] rather than bilabial [β]. Therefore the labial fricative phoneme is transcribed as /f/ with, after the earliest period, two allophones [f] and [v], the latter occurring only in voiced surroundings.[2] Examples of /f/ are: *fæder* 'father', *drīfan* 'drive', *hrōf* 'roof'. When bilabial [β] split from /b/ and merged with [v] as an allophone of /f/, ⟨f⟩ is also introduced as the spelling of the original bilabial. Thus instead of *sċēabas, salb* cited in §2.54, *sċēafas, salf* are found. Apart from cases of internal juncture, giving /f+f/, as in *offaran* 'overtake' and numerous other forms, /ff/ is extremely rare and appears to be confined to three types: (1) proper names, such as *Offa, Wuffa*; (2) onomatopoeia, such as *abyffan* 'mutter', *pyffan* 'breathe out'; (3) foreign (Lat) loan-words, where /ff/ is in the borrowed form, such as *offrian* 'offer' < Lat *offerre, cuffie* 'caul' < Lat **cuffja*, cf. lLat *cofia* 'helmet'.[3] Thus /ff/ is only a marginal member of the normal phonological inventory of OE, although no doubt the cases of /ff/ due to internal juncture and the frequency of *offrian* would promote its stability.[4]

[1] In the eMerc glossaries /ft/ is frequently represented by ⟨pt⟩, for example, compounds of *sċeaft* 'shaft' are written *sċaept-, sċept-*. EpGl *ġidopta* (= *ġeðofta*) 'companion' shows both ⟨d⟩ for ⟨ð⟩ and ⟨p⟩ for ⟨f⟩, see §2.59nl. Chiefly in late mss., but also in poetry, for example, Beo 1799 *hlīuade* 'it towered', [v] is represented by ⟨u⟩, for instance, *yuel* 'evil'. The earliest examples, however, are EpGl, ErfGl 428 *siuida* 'bran' with ⟨u⟩ for [β] beside CorpGl 940 *sifiðan*, and possibly ErfGl 768 *uīualdra* 'butterfly' beside EpGl *fīfalde*, CorpGl 1484 *fīffalde*, where medial ⟨u⟩ is probably a scribal error, see n2 below.

[2] In the later periods, probably from the late tenth century, initial /f, θ, s/ were voiced in S dialects, the earliest indication of this being in the mid tenth-century Rec 3 *uīf* 'five', see Förster (1941). Bennett (1955) suggests that this voicing may have been prehistoric, but the evidence is unreliable. ErfGl *uīualdra*, see n1 above, is almost certainly due to an error by the German scribe (which has been transferred either to or from medial ⟨u⟩), and offers no support for Bennett's thesis, whatever the final origins of the Merc glossaries may have been. For further discussion see §7.56.

[3] A few cases of /ff/ remain. *Maffian* 'become shameless', *wlaffian* 'stammer', *woffian* 'blaspheme', of uncertain etymology, may be metaphorically connected to the cases of onomatopoeia, as may *lyffettan* 'flatter', which would otherwise presuppose **lufjatjan*. For all these types see Hogg (1982a). Other forms with ⟨ff⟩ do not represent /ff/, such as EpGl *maffa* 'caul', a corruption of Lat *mappa*, cf. ⟨pt⟩ for /ft/.

[4] Of course, if /ff/ is regarded as a normal OE geminate, then the relation between /f/ and /bb/ is rather different from that supposed by §2.53. No doubt such a change in relations gradually evolved during the period.

2.59 The dental fricative was normally represented by ⟨þ⟩ or ⟨ð⟩. In the earliest texts, however, these symbols were not used, the fricative normally being represented by ⟨th⟩ or ⟨d⟩.[1] The first dated examples of ⟨þ⟩ and ⟨ð⟩ are, respectively, 803 Sweet (1885: Ct 33) *æþel-* (3×), and 700×715 Ch 21 (Cott. Aug.) *paeð*, but the evidence of the eMerc glossaries, especially EpGl, suggests that the origin of both cannot have been later than the last quarter of the seventh century.[2] The distribution of the dental fricative parallels that of the labial fricative, and there are two allophones [θ] and [ð], but it is more widely distributed than any of the other fricatives. The normal transcription is /θ/, and the use of the non-IPA /þ/ is to be deplored. Examples of /θ/ are: *þinġ* 'thing', *baþian* 'bathe', *bæþ* 'bath'. Examples of geminate /θθ/ are: *sċeþþe* 'I hurt', *niþþas* 'men' against *sċeþe* 'hurt!', *niþas* 'troubles'. It is important to note that even after the introduction of ⟨þ, ð⟩ into OE orthography, these graphs are not used to reflect the allophonic distribution of [θ] and [ð]. In early texts and until the time of Alfred ⟨ð⟩ is by far the more common; in the tenth century and later ⟨þ⟩ is rather commoner, but is mainly restricted to initial position with a minority of forms medially, and it is rarely found in final position.[3] The choice of ⟨þ⟩ or ⟨ð⟩ is therefore of no phonological importance, *pace* Stockwell and Barritt (1961: 78–9), see Kuhn (1970: 31fn66).[4]

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[1] ⟨th⟩ and ⟨d⟩ are found only in the earliest mss., especially Bede(M), EpGl and the later LVD. To a great extent the usage of ⟨th⟩ and ⟨d⟩ parallels that of ⟨þ⟩ and ⟨ð⟩, the former occurring regularly in initial position, the latter predominating in medial and final positions and not occurring initially, although note EpGl *ġidopta* 'companion', CædH(M) 2 *mōdġidanc* 'thought'. Examples of ⟨th⟩ and ⟨d⟩ are: EpGl 101 *theġn*, ErfGl 101 *deġn* 'servant', EpGl 572, 600 *lotha*, 898 *loda* 'cloak', Bede(M) † *-frid*, EpGl 425 *mearth* ErfGl 425 *meard* 'marten'. Doubling of ⟨th⟩ to indicate a geminate is rare, but note BDS 4 *aeththa*, cf. *oþþe*, 'or', and, perhaps, a simplified form † *othte*, cited in Brunner (1965: §199A1). Very rarely ⟨t⟩ represents the fricative, examples being EpGl 619, CorpGl 1320 *earbetlicust* 'most troublesome', Ch 89 † *sūtangli*, † *suutanglorum*, Ch 106 † *Cuutfert*. The Merc glossaries commonly show *-it* for 3sg.pr.ind., and this also appears occasionally in later texts, such as EpGl, ErfGl 1086, CorpGl 2078 *strīdit* 'he strides'. This may be a graphic convention particular to this inflexion or a restricted phonological change, see Campbell (1959: §735b). For other examples of ⟨t⟩ for the fricative, largely in Bede(M), see Campbell (1959: §57.5n6).

[2] Thus EpGl has, excluding obvious errors, 19 × ⟨þ⟩, 11 initial, 4 medial, 2 final, and 8× ⟨ð⟩, 3 initial, 2 medial, 2 final. ErfGl 601 *pōpīstil* for EpGl *þūþīstil* 'thistle' must be a misinterpretation of the Ep–Erf archetype, probably written in the last quarter of the seventh century, see Pheifer (1974: §88). Similarly, there are four occurrences of ⟨ð⟩ in ErfGl (307, 456, 583, 997), which are unlikely to have been innovations by the German scribe.

[3] There are many exceptions to this statement; note especially Ru2 which uses ⟨þ⟩ against Ru1 which uses ⟨ð⟩, and also Oros(L) where ⟨þ⟩ is predominant in all positions. Note also the variation in spelling of the geminate, as in Beo 604 *siþþan*, 283 *sypðan*, 132 *syðþan*, 6 *syððan*.

[4] The choice may, however, be of great importance in determining the provenance of a particular manuscript, see McIntosh (1956, 1974) on ME.

2.60 The voiceless velar fricative was normally represented by ⟨h⟩.[1] To parallel the other velar consonants, see §§2.50, 56, we may assume both a palatal and a velar allophone, the former occurring between or after front vowels, the latter elsewhere. Some support is given for this by the ME evidence, see Luick (1914–40: §709), also, in respect of OE, §7.26. More important, however, is the existence of another allophone, namely the glottal fricative [h]. The distribution of [h] and [x] (including [ç]) is as follows: [h] occurs initially and, at the very beginning of the period, medially when not geminate; [x] occurs medially when geminate and finally. Medial [h] is lost by the time of the earliest texts, see §§7.46, 50, and only a few spellings remain, such as EpGl 785 *fāēhit* 'he paints' alongside 797 *fāēdun* 'they painted'. Initially [h] appears before /l,r,n,w/ as well as vowels, see §2.72. The preferred transcription for the phoneme is /x/. Examples of /x/ initially and finally are: *hors, hros* 'horse', *seah* 'he saw'. Geminate /xx/ is rather infrequent, but examples include *hlihhan* 'laugh', *hweohhol* 'wheel'. Naturally no minimal pairs to contrast /x/ and /xx/ can be established.

[1] The spelling ⟨ch⟩, simplified to ⟨c⟩ most often before ⟨t⟩ but occasionally elsewhere, is found in very early mss., especially Bede(M), and persists in LVD. Examples include: Bede(M) † *Strēaneshalch*, CædH(M) 2 *maecti, dryctin* (2×), 9 *allmectiġ*, CædH(L) *dryctin* (2×). The use of ⟨c⟩ alone to represent /x/ is much rarer: Bede(M) † *Strēnes halc,* cf. above, Med 5.10 *waelcalo* 'Welsh ale'. In gemination early texts, including EWS, use (ch, chh, hch). Examples include: Bede(M) † *Acha*, EpGl 171 *crocha* 'pot', cf. ErfGl *chroca* which suggests scribal confusion with the cognate, but difficult to explain, forms *crohha, crocca*, note also *pohha, pocca* 'bag' and see also §7.46n3, CP(H) *tiochiað, teoch[h]að, tiohchiað* 'they suppose', *pohchan* 'bags' (3×), LVD † *Echha*, Ch 21 † *Aehcha*. The spellings of EpGl, ErfGl are most easily accounted for if one assumes that the Ep–Erf archetype used ⟨h⟩ for /x/ and ⟨ch⟩ for /xx/. In that case only EpGl 546 *bituīcn*, ErfGl *bituīchn* 'between' remains difficult to explain. An unusual form is ErfGl 364 *achlocadum* 'dug out' dat.pl., where ⟨ch⟩ represents (h) in a foot-initial /xl/ cluster.

2.61 The voiced velar fricative was represented by ⟨g⟩.[1,2] As already discussed, there were two principal allophones, [g] and [ɣ], see §2.56 for their distribution. In an historical context the preferred phonemic transcription for the phoneme is /ɣ/, although for later stages of OE the phoneme may have shifted to /g/, see §§2.56, 78(3) for fuller discussion. Probably fronted allophones occurred in the environment of front vowels, as with other velar consonants, see §§2.50, 56, 60.[3] Finally [ɣ] was devoiced and merged with /x/ during, especially, the later parts of the period, see §§7.60–6. Examples of /ɣ/ are: *guma* 'man', *dagas* 'days', *lang* 'long'. Geminate /ɣɣ/, that is, [gg], is indifferently spelled as ⟨cg⟩ or ⟨gg⟩, see Campbell (1959: §64). Examples are: *hogga* 'hog' gen.pl., *wicga* 'beetle' against *hoga* 'care', *wiga* 'warrior'. The status of [gg] appears to be somewhat marginal, for it is restricted to a small group of forms, see Hogg (1982a) for further discussion.

[1] For other values of ⟨g⟩ see §2.65 and references therein.

[2] There are a few ⟨h⟩ spellings for this fricative, which should be regarded as inverted spellings due to the devoicing of final [ɣ], see §7.64.

[3] Note in particular that on the Ruthwell Cross runic inscription the correct reading appears to be *bug[an]* ‘bow down’ rather than ***buḡan*, which is clearly an error and detracts from the apparent evidence in favour of the recognition of palatal variants by the rune-maker, see Ball (1988: 115) and §2.50.

2.62 The OE sibilants show only a two-way contrast in articulation, between dental-alveolar and palato-alveolar. The dental-alveolar sibilant patterns exactly as the dental nonsibilant fricative, and has an allophonic alternation of [voice], but the palato-alveolar sibilant is always voiceless. The contrast in place of articulation is probably somewhat unrevealing, and phonologically it may be preferable to contrast the sibilants as dental (alveolar) v. palatal, in view of the contrasts obtaining elsewhere in the consonantal system, or as plain v. palatalized, in terms of their historical origin, see especially §2.64. However Bülbring (1900a) has suggested that there might be some reason for supposing that /s/ could acquire a dorso-alveolar or prepalatal articulation, see further §§5.171n2, 208, 7.17(4) for some discussion of this point.

2.63 The dental sibilant was represented by ⟨s⟩. This sibilant, like the other fricatives, had two allophones [s] and [z], the latter only occurring medially between voiced segments. The phoneme is normally transcribed as /s/. Examples of /s/ are: *sittan* ‘sit’, *rīsan* ‘rise’, *hūs* ‘house’. Examples of geminate /ss/ are: *cysse* ‘I kiss’, *lǣssa* ‘less’ against *cyse* ‘kiss!’, *lǣsa* ‘pastures’.

2.64 The palatal sibilant was represented by the digraph ⟨sc⟩. This sibilant was developed by palatalization and assibilation of the group */sk/, see especially §7.37. An important consequence of this is that medially the result of these changes would be the geminate /ʃʃ/, although this would never contrast with /ʃ/. It further follows that since /ʃ/ does not occur singly between voiced segments there is no voiced allophone **[ʒ]. Palatalization of */sk/ occurred broadly in the following environments, see §§7.17(4) for fuller details: (1) initially, regardless of the following segment; (2) medially, except before a back vowel; (3) finally, after a front vowel and possibly elsewhere.[1] Elsewhere */sk/ remained, and ⟨sc⟩ is used ambiguously, representing both the palatal sibilant and the cluster /sk/. In this work the former will be distinguished by a superscript dot over *c*, that is, *sċ*, see §2.65. For details of the chronological as well as phonological development of the sibilant see §§7.37–9. Examples of /ʃ/ are: *sċip* ‘ship’, *disċ* ‘dish’, and geminate /ʃʃ/ is exemplified by *fisċes* ‘fish’ gen.sg. The medial and final examples may be contrasted with medial and final /sk/ as in *ascað* ‘he asks’, *tusc* ‘tooth’ (but see n1).

[1] There are later forms, such as frequent ME, dialect PDE *tush*, cf. PDE *tusk*, which imply that /ʃ/ could develop finally even after a back vowel.

2.65 OE had two affricates, both of which may be viewed phonetically as a dental stop whose release is accompanied by friction resulting in a palatal sibilant of relatively short duration. From the phonological point of view, however, they are best viewed as a single unit, since they occur both initially and finally and behave in parallel to other single unit consonants intervocalically, see Gimson (1980: 172–4) for the parallel position in PDE.[1] The only contrast between the two affricates is one of [voice], and, given their single unit status, they may best be transcribed as /ʧ, ʤ/. Both affricates may occur in gemination, which was doubtless due to a delay in release of the plosive; this delay may be indicated by the transcriptions /tʧ/, [d ʤ], see §2.67 for the non-phonemic status of the latter. These affricates developed from Gmc */k, g = [g]/,[2] by the processes of palatalization and assibilation, see §§7.15, 17(3), 33. Doubtless the change from velar stop to affricate was gradual and it had probably not been completed by the time of the earliest texts, see §§2.64, 7.36. For this and other reasons, most notably the development of /tj, dj/ sequences to the same affricates, see §7.35, it would seem reasonable to assume an intermediate stage *[c, ɟ]. The voiceless and voiced affricates were normally represented in OE by ⟨c⟩ or ⟨cc⟩ and by ⟨g⟩, ⟨cg⟩, or ⟨gg⟩ respectively, see further §§2.66–7. These symbols are, of course, ambiguous, since they are equally used to represent velar consonants. In this work a superscript dot, for example, ⟨ċ, ġ⟩, will be used to disambiguate the orthography as follows:[3]

(1) No superscript dot will be used where the orthography represents a member of a velar phoneme, that is, /k/ (including /k/ as the second member of the cluster /sk/, see §2.64), /g/ and /ɣ/ (where the latter pair are separate), see §§2.50, 51, 56, 60n1, 61).
(2) Superscript dots will be used where: (a) ⟨ċ, ġ⟩, etc. represent the affricates /ʧ, ʤ/ (§§2.66–7); (b) ⟨sċ⟩ represents the palatal sibilant /ʃ/ (§2.64); (c) ⟨ġ⟩ represents either a palatal approximant /j/ (§2.76) or the high front unrounded vowel /i/ (§2.39).

It should be noted that in the case of ⟨ċ⟩ this convention, which applies equally to geminate consonants, departs from that used in Luick (1914–40: §637) and Campbell (1959: §50.4n2), see Bazell (1960: 27).

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[1] The phonological analysis of the affricates as two separate units is less preferable not only on the above grounds, but also on others. Note, for example, the absence of a voiced palatal sibilant **/ʒ/ except in affrication. Also relevant here is the use of ⟨z⟩ to represent /ts/ clusters, such as *bezt* 'best', *milze* 'mercy', which might seem to suggest a further affricate. But various phonological developments such as metathesis, for

example, Li *bæstere* 'baptist' against Rul *bæzere*, which could not occur if /ts/ were a single unit, show that this is not the case. Note also the rare spellings Rul *bædzere* (2×), Oros 143.24 *palendsan* 'palace' dat.sg., 104.27 *yndsan* 'ounce' acc.sg. for /ts/. In late texts the French use of ⟨c⟩ for /ts/ can be found, see the examples in Campbell (1959: §53).

[2] Recall the use of both /ɣ/ and /g/ recommended in §2.56.

[3] For attempts on the part of OE scribes to disambiguate the orthography, see §2.68.

2.66 The voiceless affricate was represented by ⟨c⟩, henceforth ⟨ċ⟩.[1] Examples of /ʧ/ are: *ċild* 'child', *rīċe* 'kingdom', *dīċ* 'ditch'. Examples of geminate /tʧ/ are: *peċċen* 'cover' pr.subj.pl., *reċċe* 'narrate' pr.subj.sg. against *þeċen* 'roof', *reċe* 'narrate!'.

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[1] For the use of diacritics to indicate / /, see §2.68.

2.67 The voiced affricate was normally represented by ⟨g⟩ or the digraph ⟨cg⟩, henceforth ⟨ġ, ċġ⟩.[1] Since this affricate had developed by palatalization and assibilation of earlier *[g], its distribution was naturally rather restricted, and at first it occurs only after /n/ and in gemination. Hence /ʤ/ is found only after /n/ and finally when degeminated, examples being *senġan* 'singe', *þinġ* 'thing', *eċġ* 'edge'. /ʤ/ after /n/ and /ʤ/ finally when degeminated are commonly distinguished in the orthography, the former being spelled ⟨ġ⟩, the latter ⟨ċġ⟩, as above. But with the process of degemination by the time of the earliest texts, see §§2.78(1), 7.80 and n3, the two spellings must have become largely equivalent in force, and as a result, perhaps, ⟨ċġ⟩ is sometimes found for ⟨ġ⟩, especially in Nbr and late texts, for example, *cyninċġ* 'king', see Brunner (1965: §215) for details. Theoretically medial [gg], when palatalized and assibilated, will not contrast with /ʤ/ and therefore no geminate /dʤ/ need be postulated, see Kuhn (1970: 48, 49). Nevertheless, it seems sensible to retain the geminate phoneme for the sake of clarity and I do so here, without distributional justification. Examples of /dʤ/ are: *seċġan* 'say', *liċġan* 'lie'.

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[1] ⟨ċġ⟩ is a replacement for ⟨ġġ⟩, found in the earliest texts and occasionally in later ones, examples being: EpGl 463 *seġġ* 'sedge', CP(H) 153.8 *hryġġe* 'back' dat.sg. Other variants are ⟨ċġġ⟩ and, less often, ⟨ġċġ, ġċ⟩, for example, BDS 3 *hyċġġanne* 'think' infl.inf., CP(H) *seċġġan* 'say' and forms (6×), 327.14 *ġebyġċġean* 'buy', *hryġċ* 'back' (2×). The name-element *Eċġ-* often shows simplification in BH, BH(N) preferring *Eġ-*, BH(I) preferring *Eċ-*, but BH(M) prefers the full form. Note also Beo 957, 980 *Eċ-*.

2.68 Although the ambiguity of the symbols ⟨ċ, ġ, sċ⟩ is not regularly resolved in OE, in WS and lNbr there are signs of an attempt to do so.[1] In these dialects, when *ċ, ġ* or *sċ* stand before a back vowel, stressed or unstressed, a vowel is inserted between the consonant and the back vowel. It is extremely difficult to determine whether or not this vowel was purely diacritic or indicated a genuine sound change, see §§5.59–70 for full details and discussion, but it is likely that at least in some cases the vowel was diacritical and was inserted in order to indicate the palatal nature of the preceding consonant. Relevant examples are: *sċeōfan* ‘shove’, *sċeolon* ‘they shall’, *sċeōp* ‘he created’, *sċeop* ‘poet’, *sċeādan* ‘divide’, *sċeacan* ‘shake’, for earlier, and occasionally alongside, *sċūfan, sċulon, sċōp, sċop, sċādan, sċacan*; *ġiō* ‘formerly’, *ġiong* ‘young’, more frequently *ġeō, ġeong, ġeōmor* ‘sad’, *ġiond, ġeond* ‘throughout’, *ġeāra* ‘formerly’.[2] The Nbr forms are similar to the above WS forms except in the following respect, that for *ġeong* Nbr sometimes has *ġiung*, although more frequently *ġing* develops, see §5.64.[3] Examples of the use of a diacritic vowel before an unstressed vowel, largely from CP, see below for LWS, are:[4] *drenċium* ‘drink’ dat.pl., *ēċium* ‘eternal’ dat.pl., *ġefylċeo* ‘troops’, *penċean* ‘think’, *seċean* ‘seek’, *bisċeop* ‘bishop’, *adwǣsċeaþ* ‘they quench’, *wȳsċeað* ‘they wish’, *drȳġġium* ‘dry’ dat.pl., *meniġeo* ‘multitude’, *strenġeo* ‘strength’, *heriġeas* ‘armies’, *seċġean* ‘say’. Less usual choices of diacritic vowel are exemplified by: ClGl 3.1034 *berġeum* ‘berry’ dat.pl., CP(H) 161.4 *ġefylċio* ‘troops’, EpGl 659, CorpGl 1285 *menġio* ‘multitude’, and excessive zeal is displayed by Oros 117.29 *ġebiġġiean* ‘subdue’. The picture in LWS is rather different, for there the use of a diacritic vowel is practically non-existent in many mss. Thus in the *Homilies of Ælfric* the only regular use of a diacritic is in *bisċeop*, alongside *bisċop*, and the only other forms are ÆHom 6(H), 27(H) *wyrċeað* ‘they make’.[5]

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[1] The Nbr rune-makers also distinguished between palatalized and unpalatalized *c* and *g*, using ‘c’ and ‘g’ for the palatalized consonants, ‘k’ and ‘ḡ’ for the velar consonants. See here §2.50 for the alleged further distinction between front and back allophones of /k/ on the Ruthwell Cross. For further details of rune-makers’ practices see Page (1973).

[2] Other variants of *ġeō* and *ġeong* are *iū*, *iō* and *iung*, see §5.60, esp. n2. For the general distribution and status of ⟨i⟩ for ⟨ġ⟩ see §2.76.

[3] For occasional Merc and Kt use of diacritics after *ġ* only, see examples in Campbell (1959: §§174–5). Merc prefers ⟨e⟩, whereas Kt uses ⟨i⟩, for example, Merc *ġeond*, Kt *ġiond*.

[4] Where in the following lists no example is given for a particular sequence, such as ⟨sc⟩ + ⟨u⟩, or only one example is given, such as ⟨ġ⟩ + ⟨u⟩, this indicates that I have noted no or only one example respectively.

[5] Two further cases, ÆHom 23 *adrenċean* ‘submerge’, *ċyrċean* ‘church’, occur in ms. T, whose scribe deviates from the LWS norms, see Pope (1967–8: 735–6). These two examples occur alongside *adrenċan, ċyrċan*.

2.69 OE nasals contrasted phonologically only as labial v. dental, although the dental nasal has at least two other allophones, see §2.71. Both nasals could syllabify when word-final after another consonant, see §§6.38–40, Kuhn (1970: 39–40). Examples of syllabic /m, n/ are: *fæðm* ‘embrace’, *bōsm* ‘bosom’, *tācn* ‘sign’, *hræfn* ‘raven’.

2.70 The labial nasal was represented by ⟨m⟩ and it is regularly transcribed as /m/. Examples of /m/ are: *meltan* 'melt', *niman* 'take', *bēam* 'tree'. Examples of geminate /mm/ are: *fremme* 'I perform', *trymme* 'I strengthen' against *freme* 'benefit' acc.sg., *tryme* 'strengthen!'.

2.71 The dental nasal was represented by ⟨n⟩. The precise articulation of this sound is no more determinable than that of the other dental consonants, and it could equally well have been alveolar. The preferred transcription, therefore, is /n/, see §2.46. Examples of /n/ are: *nama* 'name', *mōna* 'moon', *stān* 'stone'. Initial ⟨hn⟩ more probably represented the sequence /xn/ than merely a voiceless [n̥], although in such cases ⟨h⟩ would represent a weakly articulated glottal fricative [h] and its inherent voicelessness may well have transferred to the nasal, so that /xn/ = [hn̥], see §2.72.[1] Examples of initial /xn/ are: *hnǣġan* 'neigh', *hnāt* 'he struck', against *nǣġan* 'address', *nāt* 'he didn't know'. Examples of geminate /nn/ are: *bannan* 'summon', *sunnum* 'sun' dat.pl. against *banan* 'slayers', *sunum* 'son' dat.pl. The use of the rune ᛝ 'ŋ' alongside ᚾ 'n', although of continental origin, continues in OE runic inscriptions, and demonstrates the existence of [ŋ] as a velar allophone of /n/ before velar consonants. It seems safe to deduce that /n/ always assimilated to a following consonant, and therefore a palatal allophone [ɲ] must also have existed before palatal consonants, although there is no direct evidence to support this.[2]

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[1] It seems plausible to suggest that voiceless [n̥] also occurred in the small group of onomatopoeic words mainly related to *fnæst* 'puff', but these, of course, are only a peripheral part of the normal phonological inventory of OE, see Hogg (1983).

[2] It is difficult to determine how 'ŋ' in RuthCr *kyniŋc* should be interpreted, see Ball (1988: 113–5). But it seems most likely that it represents a palatal nasal before a palatal consonant.

2.72 OE had two liquids, both best classed phonologically as dental, see 2.46, although phonetically they may have been alveolar. Of the two liquids one was lateral and the other central. Initially both liquids, like /n/ (§2.71) and /w/ (§2.77) could be preceded by ⟨h⟩ and the resultant ⟨hl-, hr-, hn-, hw-⟩ clusters have been interpreted in two opposing ways. Luick (1914–40: §636) and, apparently, J. Wright and Wright (1925: §7) interpret the spellings as signifying clusters, Luick suggesting /hl/, etc., Wright and Wright /xl/, etc. Brunner (1965: §217) and Campbell (1959: §50) interpret ⟨h⟩ as a diacritic indicating the voicelessness of the following consonant, hence /l̥/, etc. Kuhn (1970: 42–4) argues convincingly for an interpretation similar to that of Luick and of Wright and Wright, although we should note that very probably /xl/ was phonetically [hl̥] and so for the other forms. Both liquids, like the nasals, could be syllabic when word-final after another consonant, examples being *tungl* 'star', *hrīðr* 'head of cattle'.[1]

[1] For the interpretation of the more common forms of syllabic liquids, where an epenthetic vowel occurs, see §§6.38–40.

2.73 The lateral liquid was represented by ⟨l⟩ and is usually transcribed as /l/. Examples of /l/ are: *lamb* ‘lamb’, *talu* ‘tale’, *smæl* ‘narrow’. Examples of initial /xl/ are: *hlǣnan* ‘incline’, *hlāf* ‘bread’ against *lǣnan* ‘lend’, *lāf* ‘remainder’. Examples of geminate /ll/ are: *fella* ‘skin’ gen.pl., *sylle* ‘I give’ against *fela* ‘many’, *syle* ‘give!’. It is most probable that there were two significant allophones of the phoneme, /l/ being velarized between back vowels or when preceded by a back or a low front vowel and followed by a consonant, for further discussion see Kuhn (1970), also §5.15. It is also possible, but not yet demonstrated, that /l/ might have been palatalized when the result of WGmc gemination.

2.74 The central liquid was represented by ⟨r⟩. The most common interpretation of this symbol is that it represented an alveolar trill except before consonants, where it was probably retroflex, see, for example, Sweet (1957: §3). Neither of these articulations seems compelling. Both earlier developments, such as the shift of **z* > *r* in Gmc, see §4.15, and PDE pronunciation would suggest that either a fricative, flap, or tap articulation was more probable. However, before a consonant the body of the tongue must have been considerably raised to promote some degree of velarization, see Hogg (1971), Lass (1977), and so permit breaking to occur, see §5.16.[1] The most accurate transcription of the phoneme might therefore be /ɹ/, with a velarized allophone [ᴅ]. However, both for convenience and in view of the indeterminacy of the precise articulation we shall adopt the transcription /r/ (with relevant allophonic variants). Rxamples of /r/ are: *rīdan* ‘ride’, *berab* ‘bear’, *fȳr* ‘fire’. Examples of initial /xr/ are: *hrǣċan* ‘spit’, *hrēod* ‘reed’ against *rǣċan* ‘reach’, *rēod* ‘*red*’. Examples of geminate /rr/ are *dēorra* ‘dearer’, *mǣrra* ‘more famous’ against *dēora* ‘dear’ wk., *mǣra* ‘famous’ wk.

[1] For the view that ⟨r⟩ may have represented a uvular fricative or trill, of the type /ʀ/, see Lass and Anderson (1975: 85–9), Lass (1977), and, for a contrary view, Howells (1987). One must also accept that it is unlikely that all OE speakers had the same or very similar pronunciations of the central approximant, given the variability in the pronunciation of the sound both in later periods of the language and in PDE.

2.75 OE had two approximants (frictionless continuants) which contrasted as front v. back, the front approximant being palatal, the back one being labiovelar. Although the term approximant is preferable to ‘semi-vowel’ or ‘glide’, it is not entirely satisfactory, since the historical development of the approximants would suggest that they may have had weak friction in some cases, see §7.15, Hogg (1979b: 103–4). Despite this implied phonetic inaccuracy, the term approximant is phonologically preferable, since the sounds concerned do not pattern similarly to fricatives. Both approximants are very restricted in distribution, appearing only before syllabic segments or word-finally,[1] and neither form geminate clusters, see however §§3.16–18. When either approximant originally followed a vocalic segment but was not itself followed by a syllabic segment, it might vocalize to the corresponding vowel, see §§2.38–40 for examples, §7.69 for discussion.

[1] Note especially that approximants can therefore appear before syllabic nasals and liquids. Hence *þeġn* ‘servant’ may represent /θejn̩/ rather than /θein/, see however §7.71. For further discussion of the distribution of approximants see Lass and Anderson (1975: 9–14).

2.76 The front approximant was most commonly represented by ⟨g⟩, henceforth ⟨ġ⟩, see §2.65, less commonly by ⟨i⟩. Since this sound was a palatal approximant it is normally transcribed as /j/. Examples of /j/ are: *ġēar* ‘year’, *herġas* ‘armies’, *byrġ* ‘cities’. According to the principles stated in §2.68, the palatal nature of /j/ is often indicated by the diacritical use of ⟨i, e⟩ before back vowels, see §2.68 for examples. ⟨i⟩ represents the approximant most commonly in the earliest texts and primarily in initial position, examples being: EpGl, ErfGl 958 *iesca* ‘sobbing’, cf. CorpGl 1865 *ġesca*, BDS 3 *hiniongae* ‘departure’ dat.sg. But throughout the period ⟨i⟩ frequently replaces ⟨ġ⟩ before /u/ and in loan words, examples being: *iū* ‘formerly’, *iung* ‘young’, *Iōhannes, Iēsus*.[1]

[1] The spelling ⟨iġ⟩ is not often used as a compromise between ⟨ġ⟩ and ⟨i⟩ for /j/, but rather either to indicate a sound change, as in *byriġ* ‘cities’, see §§6.43–4, or, possibly, as a compromise spelling for /i/, but see §7.69. On the other hand, the regular gen.dat.sg. *hāliġes, hāliġe* of ÆHom may be either a spelling for /j/ or due to epenthesis between a liquid and an approximant, see Pope (1967–8: 184–5) and §7.76n2.

2.77 The back approximant was most commonly represented by ⟨w⟩, or, rather, the runic symbol ƿ (wynn), see §2.2, less commonly by ⟨u⟩ or ⟨uu⟩. This sound was undoubtedly labiovelar and the preferred transcription is /w/. Examples of /w/ initially and medially are *wind* ‘wind’, *snāwas* ‘snows’. Finally /w/ should not occur, see §§4.9, 7.72–3, but ⟨w⟩ is often found there although without certain phonological implication, hence *snāw* ‘snow’. In the earliest texts and continental mss. runic ⟨ƿ⟩ is most infrequent and is regularly replaced by ⟨u, uu⟩.[1] Hence EpGl has only nine cases of ⟨w⟩ alongside frequent ⟨u, uu⟩, such as 1014 *wand* ‘mole’ beside 1045 *uuandaeuuiorpae* ‘mole’, whilst the continental ErfGl has no instances of ⟨w⟩.[2] CorpGl has all three spellings. A number of mss., especially CP(H), use ⟨u⟩ postconsonantally, ⟨w⟩ elsewhere. ⟨u, uu⟩ are most common in Nbr, being used throughout the period. Examples are: CH(M, L) *uard* ‘guardian’, *uerc* ‘work’, *uundra* ‘miracle’ gen.pl., BDS *uuiurthit, uueorthae* forms of ‘become’, LRid *uēta* ‘wet’, *uong* ‘plain’, Li *huelċ* ‘which’, *ġiuias* ‘thou askest’, *uulfes* ‘wolves’.[3]

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[1] Nevertheless ⟨w⟩ appears in a dated text as early as 685×694 Ch 1117 † *Writolaburna*, † *trīow* ‘tree’.

[2] ErfGl normally replaces ⟨w⟩ by ⟨u, uu⟩, but 173 *pindil* for EpGl *windil* ‘basket’ and 1059 *uuidubindae* for *wi(d)uwindae*, CorpGl 2158 *uuduuuinde* ‘bindweed’ shows the continental scribe’s unfamiliarity with (ƿ).

[3] LNbr shows a number of further variations, with ⟨wu⟩, and hence ⟨wo⟩ occasional ⟨o⟩, such as Li *ġeðuoa, ġeðoa* ‘wash’. Forms such as Li *oeġ* ‘way’ are ambiguous, but probably arose due to a reluctance to double ⟨o⟩, see Brunner (1965: §172A), and hence equal *woeġ*.

2.78 Of the various changes to the OE consonant system which occurred during the period, three pose special problems of phonological classification, and are mentioned below in addition to the discussion above.

(1) It is assumed above that OE had geminate consonants only in medial position, but it is probable that geminate clusters existed finally in the earliest parts of the period. Hence contrasts such as *brocc* ‘badger’ against *brōc* ‘affliction’, see §2.50 for the medial contrast, must have existed at that time. However, even very early texts show variation between geminate and single spellings, for example, EpGl, ErfGl 243 *bedd*, 971 *bed* ‘bed’, and this indicates early degemination, see further Kurath (1956: 435) and the discussion and further references in §§7.80–1.[1]

(2) It is probably impossible to determine when palatal [c, ɟ] completed their development into affricates, see §2.65. They are classed as affricates here because by the time of the earliest texts they were phonologically distinct from velar [k, g] and because they had undoubtedly become affricates before the end of the period.

(3) We have already discussed (§§2.56, 61) the problematic phonetic status of [g] and [ɣ], when it was suggested that diachronically the preferred analysis might be /ɣ/, but synchronically it might be /g/. On the other hand, the use of both /ɣ/ and /g/ was advocated for the purpose of exposition. The diachronic preference for /ɣ/ is based primarily on the fact that palatalization of **g* > /j/ (except after nasals and in gemination) is scarcely explicable if we assume */g/, *pace* the views noted in §2.56n1. The synchronic analysis of /g/ is often justified on the grounds that a phonemic system with /ɣ/ but not /g/ is highly marked, but this is somewhat weakened by the fact that such a phonemic system appears to be a typological feature of the North Sea Gmc languages, for example, OFris, OSax (Moulton, 1972: 155–60) and also ModFris (Cohen et al., 1961: 122–3), see also Hogg (1979b). Probably more crucial,

therefore, is the phonetic status of initial *g*. We have already noted that since initial **g* palatalizes to a fricative, it must at the time of palatalization have been a fricative itself. On the other hand, initial **g* undoubtedly had become a stop before the ME period, and although no precise dating can be established, it is most probable that it was a stop in the later periods of OE. As such the synchronic analysis of /g/ is probably the preferred analysis for those periods. Nevertheless, the picture is made more complex by the status of [gg]. Naturally [gg], which was undoubtedly a geminate stop, could only arise by processes other than WGmc gemination, since [gg] by that process develops as /ʤ/. The problem is that the words which contain [gg] are not only of dubious etymology but are also members of a clear semantic set, largely animal pet-names, such as *docga* 'dog', *frogga* 'frog', **picga* 'pig', **stagga* 'stag', *sugga* 'sparrow', *wicga* 'earwig'.[2] As such, the status of [gg] is rather less clear than it might be, since it would seem to have some phonaesthetic or similar force, see Hogg (1982a). Interestingly, if degemination were earlier than devoicing of final fricatives, which is, alas, unlikely, [g] and [ɣ] would contrast finally: *hogg* 'hog' against **hog-*, as in compounds of the type *hohful* 'mindful'.

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[1] Doubling of letters is quite common in runic inscriptions, and this could be the source of double consonants in Li and Ru2, such as *sċipp* 'ship', *beġeattas* 'they obtain'. It is more likely, however, that they indicate the shortness of the preceding vowel, see Luick (1914–40: §§670–1) and, for the runic evidence, Page (1962).

[2] But note *sċeacga* 'hair', which is possibly a borrowing from ON. For *flocgian* (Brunner, 1965: §216.2) read *floċġan*, cf. PrudGl1 *floċġest* = Lat *emices*, where an affricate is clearly plausible.

2.79 From the above discussion it is possible, maintaining the reservations of §2.41, to suggest the following consonant system for OE:

	Labial	*Dental*	*Palatal*	*Velar*
Voiceless stops	/p/	/t/	–	/k/
Voiced stops	/b/	/d/	–	–
Voiceless fricatives	/f/	/θ/	–	/x/
Voiced fricatives	–	–	–	/ɣ/
Sibilants	–	/s/	/ʃ/	–
Affricates	–	/ʧ,ʤ/		–
Nasals	/m/	/n/	–	–
Liquids, approximants	–	/l,r/	/j/	/w/

2.80 In isolation OE syllables divided into two types: heavy and light. In stressed positions heavy syllables had a minimal rhyme structure of -VVC or -VCC, for example, *stān* 'stone', *word* 'word', whilst light syllables had the structure -VC, for example, *sċip* ‘ship’.[1] In stressed positions extra-heavy syllables of the types -VVCC, -VCCC, -VVCCC could occur, such as *hēold* ‘he held’, *fyrst* ‘period’, *ēhst* ‘thou persecutest’ (< **ēhtst* < **ēhtest*), but the type -VVCCCC as in **ēhtst* does not seem to have occurred. In unstressed positions everywhere, only light syllables and heavy syllables of the type -VCC occurred, such as *dæġes* ‘day’ gen.sg, *Hǣlend* ‘Saviour’. Additionally extra-light syllables of the type -V could occur both medially and finally, such as *lufode* ‘he loved’. It also seems probable that unstressed syllables containing only a resonant could occur, hence *hræfn* ‘raven’, but see §§6.38–40 for discussion and examples. The different restrictions on syllable weight in stressed and unstressed positions mean that there is fluctuation in vowel length in words subject to variable stress, notably non-lexical items such as pronouns, such as *hē̆* ‘he’, *swā̆* ‘so’.

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[1] V indicates a short vowel or diphthong, C indicates a short consonant, whilst VV indicates either a long vowel or a long diphthong and CC indicates either a sequence of consonants or, medially, a geminate consonant.

2.81 There is some evidence from OE stress, see McCully and Hogg (1990: esp. 321), that in polysyllabic words the division of syllables followed the principle that intervocalic consonants should be assigned to the following syllable wherever possible, hence *[stā][nas]* ‘stones’, etc. Where the intervocalic consonant was a geminate, however, it seems more likely that the syllable division intervened, so that the structure was of the type *[frem][man]* ‘perform’. However, if this principle of syllable division resulted in an over-light stressed syllable of the type -V, for example, *[sċi][pu]* ‘ships’, it seems likely that a process of ambisyllabification occurred so that the intervocalic consonant belonged to both the coda of the stressed syllable and the onset of the following syllable, for example, *[sċi[p]u]*. There is no evidence that the same process occurred if the stressed syllable already had the minimal structure proper to stressed syllables, hence the /n/ in *[stā][nas]* remains a member of the second syllable only and is not ambisyllabic, see Colman (1986). Nor does the process of ambisyllabification operate in unstressed syllables, which can always be extra-light, see §2.80.

2.82 It is, however, clear that word-boundaries overrode the principles of ambisyllabification outlined in §2.81, so that in compound words syllable-boundaries and word-boundaries would coincide, for example, *[hēah][engel]* ‘archangel’, *[gūþ][rinc]* ‘warrior’. But many historical compounds were no longer synchronically analysed as such in OE, and thus we find original compounds which come to be syllabified in the same way as in simple lexemes, for example, *[wo[r]old]* ‘world’ < **wer-ald, [o[n]et][tan]* ‘hasten’ < **an-haitjan*. This is the explanation of the back formation *ræfnan* 'performs' from *aræfnan* 'perform' < **or-aβnjan*. The resyllabification would promote confusion of *æ-* and *or-* prefixes, see §2.88n4.

2.83 The phonotactics of OE syllables as they pertain to consonantal onsets and codas do not often differ significantly from those in PDE, see Gimson (1980: 237–53). The discussion below, therefore, considers only the more important contrasts between OE and PDE, firstly in onsets and secondly in codas. For further discussion of these contrasts see Lutz (1988).

(1) A number of onset clusters are found in OE which are not found in PDE. Of these the most important are clusters of /w/ + liquid, that is, /wr-, wl-/, as in *wrītan* 'write', *wlanc* 'proud'. Whereas /wr-/ clusters are extremely common, /wl-/ clusters are relatively infrequent. It is noticeable that such clusters violate the so-called 'sonority hierarchy', whereby less sonorous segments should be closer to the margins of the syllable, see Hogg and McCully (1987: 32–4) and references therein, also Lutz (1988). Rather less significant but yet of interest are the initial sequences of /x/ + resonant, that is, /xw, xl, xr, xn/, which begin to be lost at the end of the OE or beginning of the ME period, see §7.48. The infrequent initial cluster /fn-/, for example, *fnǣsan* 'sneeze', remains throughout OE, to be lost much later in ME or, perhaps, be replaced by /sn/, see Hogg (1983). Finally, it is of interest to note that in OE poetry the groups /sp, st, sk/ alliterate only with themselves, as in, for example, Beo 1409, cf. Beo 1569 where /sw/ alliterates with /s/, and this suggests that these groups filled a single slot in the onset structure, as in PDE.

(2) Perhaps the most important feature of codas is that clusters of the type nasal + homorganic consonant occur with labials and velars as well as dentals, hence *lamb* 'lamb' = /lamb/, *hring* 'ring' = /xring/, in addition to *hand* 'hand' = /hand/. Where a consonantal cluster forms the coda of an extra-heavy cluster, it would appear that the final consonant must be a dental, a situation not dissimilar to PDE.

2.84 OE had, like PDE, a stress-based system of accentuation, and in this respect differed from late IE, where a pitch-based system of accentuation existed, see §3.4. Furthermore, in OE, as elsewhere in Gmc, stress soon came to be fixed upon the first syllable of a word, that is to say, OE developed a 'left-strong' stress system. The evidence for stress patterns derives from four sources: (1) sound changes restricted to stressed syllables, such as palatal diphthongization (§§5.47ff.); (2) loss or reduction of weak-stressed elements (Chapter 6); (3) metrical and alliterative practice; (4) the assumption, where the evidence permits, of an unchanging stress system throughout the history of English. It should be noted, of course, that (4) cannot be wholly correct, since PDE has a 'right-strong' system of stress, see McCully and Hogg (1990) for further discussion. Furthermore, it has to be recognized with respect to (3) that however close the rhythms of OE poetry may have been to normal speech, the two sets of rhythms could not have coincided completely, see Daunt (1946), also McIntosh (1949). The stress system presented here is intended only as an approximate guide to the stress system of 'normal' OE speech, and hence, although it should not contradict the metrical system of OE, it should not be taken as an analysis of metrical stress, except where specifically stated.[1] It should be clear, therefore, that the status of the outline below is even more hypothetical than the remarks elsewhere in this work, and they should not be considered to be in any way factual.

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[1] The fundamental works on OE metrics are Sievers (1885, 1893a, 1893b), importantly revised by Bliss (1962). For another view see Pope (1942), also Heusler (1925–9). A segmental generative account is presented in Halle and Keyser (1971: 87–97), and a non-linear account is given by McCully and Hogg (1990). Other important recent works include Russom (1987), Suphi (1985, 1988).

2.85 The reconstruction of OE phrasal accent is entirely reliant on metrical analysis, and it is possible only to outline the general principles underlying that. Naturally in any given phrase or sentence these principles must be flexibly interpreted, since syntactic structure or rhetorical emphasis, amongst other factors, can change patterns of intonation and stress radically. Nevertheless, it is possible to distinguish three types of word category in relation to phrasal accent:[1]

(1) Type I words are those lexical items which normally both are stressed and receive tonic accent. The word-classes belonging to this type are nouns, adjectives, adverbs, including infinitives and participles when they function syntactically as nouns and adjectives respectively.[2]

(2) Type II words are those lexical items which are normally stressed but do not normally receive tonic accent. The word-classes belonging to this type are verbs and adverbs. Note that adverbs may therefore be either Type I or Type II, although they are normally the latter. There is a hierarchy of word-classes, such that nouns and adjectives receive tonic accent in preference to adverbs, whilst adverbs receive tonic accent in preference to verbs.

(3) Type III words are generally non-lexical items which normally both are unstressed and do not receive tonic accent. The word-classes belonging to this type include pronouns, quantifiers, prepositions, and conjunctions.

The contrast between lexical and non-lexical items is particularly significant in considering the variable stress of affixes and similar forms. Thus a suffix such as *-līċ* may be either (secondary-)stressed or unstressed, according to whether it is affixed to a lexical or non-lexical item: it will have secondary stress in *ġelustfullīċe* 'joyfully', but be unstressed (with consequent syncope) in **hwa-lik* > *hwelċ* 'which'.

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[1] The standard work on sentence accent (from the point of view of poetry) is H. Kuhn (1933). Fakundiny (1970) valuably emphasizes the flexibility of the system, see too Slay (1952).

[2] Of course, when infinitives or participles are syntactically verbal, then they have the same characteristics as any other verbal form.

2.86 The general principles underlying OE word stress appear to be as follows, see McCully and Hogg (1990) for a fuller account. Firstly, stress was assigned on a left-to-right basis in words. Secondly, only heavy syllables may be stress-bearing, except in the case of initial (leftmost) syllables, which may bear stress even if light, provided that they are followed by an unstressed syllable. Thirdly, the leftmost stressed syllable in a word receives primary stress, and all other stressed syllables receive secondary stress. The following morphological elements were capable of bearing stress: (1) the root morphemes of lexical items, see §2.85; (2) prefixes of nouns and adjectives; (3) derivational suffixes which were historically free morphemes; (4) second elements of proper names. These four types are discussed separately in §§2.87–90 below, and exceptional cases are discussed in §2.91.

2.87 No problems are presented by words with only one root morpheme, where the first syllable is always stressed, for example, *wórd* 'word', *ýfel* 'evil', *wrḗon* 'cover'. In such words the addition of an inflexional syllable has no effect, for example, *wórdes* gen.sg. If a further syllable in the morpheme is heavy, then it bears secondary stress, but only if that syllable is not final. Hence the addition of inflexional endings characteristically alters stress patterns, for example, *ǽþeling* 'prince' but *ǽþelìngas* 'princes'.[1] In compounds both root morphemes naturally have at least one stress-bearing syllable, but again it is only the leftmost syllable which bears primary stress.[2] Typical examples are: *stǽfcrcæ̀ft* 'grammar', *gámolfèax* 'grey-haired', *híldfrùma* 'prince', *fȳ́rhèard* 'fire-hardened', *gū́þġelā̀c* 'battle', *mánfordǣ̀dla* 'criminal'. An important subgroup of compounds are those compound verbs where the first element of the compound is a separable prefix originally derived from a preposition. These prefixes can be divided into three groups; (1) prefixes occurring only as separable prefixes: *æfter, fore, from, mid, onġēan*; (2) prefixes identical to stressed inseparable prefixes, see §2.88: *æt, bī, inn, ofer, tō, þurh, under, ymbe*; (3) prefixes identical in form to unstressed inseparable prefixes, see §2.88: *of, on, wiþ.*[3] When the prefix remains with the verb the stress pattern is as for other compounds, such as *ínngàngan* ‘enter’, *ǽfterspỳrian* ‘inquire’. Naturally, the root morpheme of the verb becomes primary-stressed when the prefix is separated from the verb.

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[1] In forms such as *cýningas* ‘kings’, the second syllable is unstressed since the first syllable is light, see §2.86 for this restriction on stressed initial syllables.

[2] Sievers’s claim (1893b: §§6.2, 15.3c, 15.4c) that some compounds might have two primary stresses, for example, Beo 37 *of féorwégum* ‘from a distance’, 1155 *éorþcýninges* ‘earthly king’ gen.sg., is implausible. Where such forms must carry two primary stresses metrically, as with *éorþ cýninges*, they should be analysed as two separate words, on the analogy of Beo 1210 *feorh cyninges*, 2912 *fyll cyninges*.

[3] Note Max 1 *wiþre healdaþ* ‘resist’ with the stressed form of the prefix. Elsewhere the unstressed forms of *of, on, wiþ* have been generalized, except, of course, where the prefix is stressed and inseparable, see §2.88.

2.88 In §2.84 it was observed that, whereas in the earliest periods of Gmc stress was variable, it soon came to be fixed upon the first syllable of a word. Consequently the initial syllables of OE words were stressed regardless of whether or not the initial syllable was part of a root morpheme. If the initial syllable was (part of) a prefix, then the root morpheme would still carry stress, but of course, by §2.86, that stress would be secondary. Examples are *ándġìt* ‘sense’, *órlèahtre* ‘blameless’. This, however, holds only for nouns, adjectives and adverbs. In verbs at the time of the Gmc accent shift the verbal prefixes, unlike the nominal and adjectival prefixes, were not yet compounded with the verb but were unstressed proclitics of verb phrases. As a result, verbal prefixes were not normally stressed in OE (except, of course, the separable prefixes discussed in §2.87), and the first stressed syllable of inseparably prefixed verbs is usually the first syllable of the root morpheme, hence *forbǽrnan* ‘burn up’, *ofercúman* ‘overcome’, cf. nouns such as *fórwỳrd* ‘ruin’, *ófermæ̀ġen* ‘superior force’. As a result of these contrasting stress patterns, minimal pairs exist, with nouns and adjectives showing the development of the stressed prefix, verbs showing the development of the unstressed prefix. The principal minimal pairs are:

_*a-_	*ǽfþànca*	‘offence’	*ofþýnċan*	‘displease’
*ana-[1]	*ánġìn*	‘beginning’	*anġínnan*	‘begin’
*and-[1]	*ándsàca*	‘apostate’	*ansácan*	‘deny’
_*at-_[2]	*ǽtspỳrning*	‘offence’	*otspúrnan*	‘stumble’
_*bī-_	*bī́gènġa*	‘inhabitant’	*begā́n*	‘occupy’
*inn-[3]	*ínstæ̀pe*	‘entrance’	*instǽppan*	‘enter’
*unþ-	*ū́þgènġe*	‘evanescent’	*oþgā́n*	‘escape’
_*us-_[4]	*ǣ́lǣ̀te*	‘divorcée’	*alǣ́tan*	‘let go’
_*us-_[4]	*órþànc*	‘mind’	*aþénċan*	‘devise’
*wiþar-[5]	*wíþersàca*	‘adversary’	*wiþsácan*	‘refuse’

Other prefixes which may precede either nouns or verbs show no distinction between stressed and unstressed forms. The principal examples are: *æfter-*,[6] *ed-*, *for-*, *fore-*, *mis-*, *ofer-*, *tō-*,[6] *þurh-*, *un-*, *under-*, *up-*,[6] *ymb-*, cf. typical examples above.[7]

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[1] The unstressed form of **and-* (= **ant-*) has been lost, or, possibly, merged with the unstressed form of **ana-*, and in either eventuality the unstressed forms of **and-* and **ana-* are identical in OE. Hence amongst stressed forms a considerable number of doublets are found, such as *andfeng*, *anfeng* 'seizing'. For the variation between *an-* and *on-* see §§5.3–6.

[2] The unstressed form *ot-* is rare: Ps(A) *otēawan* 'show' (frequently, beside *od-* 1×), *otēctun* 'they added', *otspurne* 'strike' 2sg.pr.subj., ProvGl *otsperninċe* 'offence', cf. *ætspyrning*. Otherwise *ot-* is replaced by either *æt-* or *oþ-*, the unstressed form of **unþ-*.

[3] Since *-nn-* would degeminate except intervocalically, the stressed and unstressed forms are usually identical as here. But intervocalically geminate forms can be found, such as *innylfe* 'bowel'.

[4] The normal development of the stressed prefix is to *or-*, but OE, OSax, OFris show a development to *ǣ-*, *ā-* as well, probably due to loss of */r/ with lowering and compensatory lengthening, although the development is obscure, see §3.20 for some possibly related developments. The unstressed prefix always loses */r/ except in *aræfnan* 'perform', see §2.82.

[5] But occasional forms such as *wiþercweþan* 'resist', *wiþersacian* 'blaspheme' show extension of the stressed prefix, either from participial forms with adjectival stress or from related nouns, such as *wiþercweþness* 'contradiction', *wiþersacung* 'blasphemy'.

[6] These prefixes may also be separable, in which case they are stressed when separable prefixes of verbs, see §2.87.

[7] For exceptions to the above see §2.91(2).

2.89 The third group of elements capable of being stressed comprises those derivational suffixes which were historically derived from free morphemes. The principal suffixes concerned are: *-bǣre, -bora, -cund, -dōm, -fæst, -feald, -full, -hād, -lāc, -lēas, -līċ, -rǣden, -sċipe, -sum, -weard*. Historically such suffixes must have behaved like the second elements of compounds, so that stress patterns such as *lústbǣ̀re* 'agreeable', *gódcùnd* 'sacred', *wúldorfùll* 'glorious', *drḗamlḕas* 'joyless', *éorlsċ̀ipe* 'courage' would have occurred, but the status of these elements appears to have been gradually obscured during the period, so that words containing such suffixes are treated parallel to forms such as *æþeling* discussed in §2.87, and the suffixes bear secondary stress only if they are disyllabic by either origin or inflexion. Where stress is lost in monosyllabic suffixes, then long vowels are naturally shortened, for example, *cýnedom* 'kingdom' < *cýnedṑm*. Evidence for variability of stress is found in words where the suffix has developed according to the pattern of unstressed syllables, such as *hlāford, hlāfordes* 'lord', *fulluht, fulluhtes* 'baptism', alongside stressed forms PPs *hlāfwearde* 'steward', Ch 634 *fulwiht, fullwihtes* (more frequent).

2.90 Quite parallel to the forms discussed in §2.89 are the second elements of proper names, for these elements were also variable in stress in exactly the same way. Examples are: *Hrṓþgar, Bḗowulf*, but *Hrṓþgā̀res*, etc.

2.91 In this section are discussed firstly the principal exceptions to the rules of compound stress and secondly those to the rules of word stress, particularly as they affect prefixes.

(1) The main group of exceptions to the rules of compound stress discussed in §2.87 consists of compound adverbs. In these cases the stress system applies as if the two elements were phrasally joined, and hence the stress patterns are initially determined by the rules of phrasal stress, see §2.85. Thus compounds where the first element is a preposition and the second element is a noun adverb are always stressed on the second element, for example, *todǽġ* 'today', *onbǽc* 'behind', *befóran* 'before', *beġéondan* 'beyond'. In such cases the unstressed first element is often reduced, for example, *bæftan* 'behind', *būtan* 'without', *bufan* 'above', *binnan* 'inside' against *beæftan, beūtan, beufan, beinnan*. Similarly the prefix *full-* is unstressed in *fulloft* 'very often', etc. Where both elements of the compound are non-lexical and therefore unstressed in isolation, but the compound adverb is lexical and stress-bearing, the position is less clear, but the adverbial conjunctions *þā* and *þǣr* seem always to be unstressed, for example, *nū́þa* 'now then', *þaġī́t* 'as yet', *þærínne* 'therein'. On the other hand the quantifying adverb *eall* seems, as would be expected, always to be stressed, for example, *éallswa* 'so', *éalneġ* 'always'.

(2) The principal cause of variation in the stress system of prefixed forms is the contrasting stress patterns of nouns and verbs discussed in §2.88. The consequence of this contrast is that the nominal and verbal stress systems compete with one another and that therefore, for example, nouns which are derived from verbs (or felt to be so derived) may take the verbal stress pattern. We may distinguish five types where an unexpected stress pattern is found: (a) deverbal nouns; (b) denominal verbs; (c) participles; (d) forms with the prefix *un-*; (e) forms with the prefix *ġe-*. These are discussed separately below.

(a) Where nouns are derived from complex verbs the nominalization has no effect on the stress pattern, and so initial prefixes remain unstressed, for example, *forġífness* 'forgiveness' < *forġífan, alȳ́sing* 'redemption' < *alȳ́san, onsċúnung* 'abomination' < *onsċúnian*. This process is particularly common when the prefix is *be-* (= accented *bī-*) and *for-*, and in these cases the unaccented forms of the prefix predominate even amongst nouns, for example, *bebód* 'command', *behāt* ‘promise’, *forbód* ‘prohibition’. However, in a number of instances, especially where the derivational relationship is less transparent, the normal nominal pattern is followed, and forms with stressed prefixes are found, such as *bī́spèll* ‘proverb’, *fórwỳrd* ‘ruin’ (alongside *forwýrd*).[1,2]

(b) Similarly, where verbs are synchronically derived from nouns the verb formation process does not affect stress, and hence initial prefixes remain stressed, for example, *ándswàrian* ‘answer’ < *ándswàru, fúltùmian* ‘help’ < *fúltùm, ándwỳrdan* ‘answer’ < *ándwỳrde*.[3]

(c) Although participles are syntactically often adjectival, so that they should have stress on the prefix, it is more common for them to follow the stress pattern of the verb from which they are derived, for example, *underþḗoded* ‘subjected’. Nevertheless, occasional forms can be found with stress on the first element, showing the syntactically expected stress pattern, such as *únderþḕoded*. Hence participles such as *wíþerhỳċġende* ‘hostile’ show the stressed prefix *wiþer-* rather than *wiþ-*, see §2.88.

(d) The negative prefix *un-* occurs mainly with nouns, adjectives and adverbs and so should always bear primary stress, for example, *únclǣ̀ne* ‘impure’, *únsmḕþe* ‘rough’. But sometimes the primary stress is transferred to the root syllable, for example, *unclǣ́ne*. Doubtless such transference is due to the synchronic productivity of *un-* as a prefix capable of negating any suitable form. Further evidence for this is possibly found in the replacement of the unstressed prefix *an-* (*on-*) by *un-* in verbs such as *unbíndan* ‘unbind’ (alongside *onbíndan*).

(e) The prefix *ġe-* was never stressed in Gmc, even in nouns, see Bennett (1972: 109–10), and thus forms such as *ġesċéaft* ‘creation’ always have stress on the root syllable.[4] Most such forms may be taken under §2.91 (2a) but the same holds for forms not synchronically related to verbs, such as *ġelī́ċ* ‘like’.

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[1] Similarly *bēot* ‘promise’ is found beside *behāt*, where the different stress pattern has permitted loss of *h* and hiatus resolution.

[2] The expected stressed form of *for-*, namely *fra-*, occurs only in *frǽtwe* ‘ornaments’ and its derivatives and *frácoþ* ‘wicked’. That the prefix is no longer analysed as such can be seen from examples such as *ġefrǽtwode* ‘adorned’, see too n4.

[3] This is also the case at least in *ṓnettan* ‘hasten’ where the derivation from a noun has been obscured. The synchronic status of *ándettan* ‘confess’ is less certain, cf. various derived forms of **andett* and perhaps the predicative noun *ándetta* ‘confessor’.

[4] A possible exception is *ġéatwe* ‘armour’, cf. *ġetáwe* ‘equipment’. The parallel development of *frǽtwe* and the existence of Goth *(us)fratwjan* ‘equip’ without medial vowel both suggest the possibility of an earlier abnormal development which does not contradict the unstressed value for **ga-* in Gmc, see Luick (1914–40: §314A2). For another view see Streitberg (1896: §143) but compare Bennett (1972: 110fn6). For the length of *a* in *ġetawe* see Pope (1942: 322).

3

The vowels in Germanic

I Primitive Germanic

3.1 It is not possible within the scope of this work to give more than a brief outline of the development of vowels in Germanic prior to the period of Old English. Nor is any attempt made here to discuss the vowel system of Indo-European. Further, particular attention is paid only to those developments in later periods of Germanic which lead directly to the evolution of the OE vowel system. Fuller discussions of the Germanic material may be found in works such as Prokosch (1939), Krahe and Meid (1969), and the contributions in van Coetsem and Kufner (1972), especially Antonsen (1972) and Bennett (1972).

3.2 Given the arbitrariness of any starting-point it is most convenient to use as our initial stage the period when Germanic had become clearly distinct from the other IE languages but before the time of the Germanic accent shift (see §3.4). For this period of Primitive Germanic we may reconstruct a vowel system consisting of six long vowels, four diphthongs, and four short vowels. The diphthongs consisted of /e, a/ together with a high element which could be either front or back. This gives a system as follows:

(a) Long vowels
iː uː
eː oː
æː ɑː

(b) Diphthongs
ei eu
ai au

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(c) Short Vowels

i u
e
a

3.3 The system of long vowels and diphthongs postulated in §3.2 underwent modification at the very earliest period of PrGmc, if not earlier, so that */ɑː/ merged with */oː/ and the diphthong */ei/ monophthongized to */iː/. */ɑː/ was rare in IE, but the above shift is the source of OE *brōþor* 'brother', *mōdor* 'mother', *stōd* 'stood', cf. Lat *frāter*, *māter*, *stāre*. */ei/ was common, however, and its monophthongization is well represented, as in the present forms of strong class I verbs, such as *rīdan* 'ride', cf. the spelling ⟨ei⟩ in Goth to represent /iː/, for example, *reidan*. These developments produce the long vowel system:

iː uː
eː oː
æː

3.4 The major phonological shift in PrGmc, however, concerns accent. It is generally thought that in late IE accent was primarily determined by pitch. Pitch accent was variable, that is to say, it could occur on any syllable in the word as determined either lexically or morphologically. However, PrGmc developed a new system of stress accentuation which was governed by the principles outlined in §§2.84–91 for OE. This had the important consequence that henceforth, in contrast to the system operating under pitch accentuation, Gmc and its daughter languages began to treat vowels in stressed and unstressed syllables differently. The following sections deal only with vowels of stressed syllables; for the vowels of unstressed syllables see §§3.27–34.

II Vowel harmony

3.5 In all the Gmc languages, although to a lesser extent in OE than others (and to a greater extent in OHG than others), there is a clear tendency to harmonize the short vowels */i, u, e/ to a following vowel, so that */i, u/ lower before a nonhigh vowel and */e/ raises before a high vowel. However, if the short vowel is followed by */n/ + consonant or */m/ alone the harmonic process is inhibited and */e/ is raised to */i/. Clearly these developments before */n, m/ are simply a matter of raising before nasals, whereby all nonlow short vowels become [+high]. However, see Prokosch (1939: 113) for a contrary view.

3.6 */e/ regularly harmonizes to */i/ before */i/ or its consonantal counterpart */j/ in all the Gmc languages. The most obvious relevant OE examples are in the 2,3sg.pr.ind. of strong verbs of classes III–V, hence *hilpst*, *hilpþ*, *stilst*, *stilþ*, *spricst*, *spricþ* from *helpan* ‘help’, *stelan* ‘steal’, *sprecan* ‘speak’. Parallel to these is the present tense of the so-called weak presents of class V, *biddan* ‘ask’ < **bidjan*, *sittan* ‘sit’, *liċġan* ‘lie’, *friċġan* ‘ask’, *þiċġan* ‘partake’. Other varied types of example include: *midd* ‘middle’, cf. Lat *medius*, *riġnan* ‘rain’, cf. *reġn*, *wine* ‘friend’, cf. Lat *venia*. A consequence of this change is that in OE /e/ cannot except by analogy stand before /i, j/ at the time of *i*-umlaut and there are therefore no definite examples of the *i*-umlaut of */e/ in OE, although the results of the two processes would be identical for OE, see §5.81 for discussion.

3.7 An integral part of the change */e/ > */i/ is that the Gmc diphthong */eu/ shifts to */iu/ in the same circumstances, for example, **biudis*, **biudiþ*, etc. < **beodan* ‘ask’. Unlike the forms of §3.6, however, these then may be subject to *i*-umlaut in WS, giving *bȳtst*, *bȳtt*, etc., see further §5.83.

3.8 The parallel shift of */e/ > */i/ before */u/ is frequent in OHG and OSax, but is generally absent in OE and OFris, for example, OHG, OSax *filu* ‘many’, cf. OE *fela*, OHG *mitu*, *metu* ‘mead’, cf. OE *medu*. The only good OE example of the shift is *cwudu* ‘cud’ < **cwidu* < **cwedu* by Combinative Back Umlaut of /i/, cf. EpGl 655 *-quidu* and see §5.109. If this is a genuine example the change may have been encouraged by the preceding */w/, see Ross (1954: 95–6).

3.9 Except before nasals, see §3.5, */i/ > */e/ before non high vowels quite frequently in OFris, OSax, but the change is only attested in OE by *nest* ‘nest’, cf. Lat *nīdus*, *wer* ‘man’, cf. Lat *vir*, and Ch 1195.5 *speċes*, gen.sg. of usual *spiċ* ‘bacon’. Note particularly that weak class 2 verbs such as *clipian* ‘call’ show no sign of the change, similarly *leofaþ* ‘he lives’ < *lifaþ*.

3.10 There is some variation in OE in the parallel lowering of */u/ > */o/ before non high vowels. Particularly in pa.parts. of strong verbs of classes II–IV the lowering is very regular, hence *coren* ‘chosen’, *holpen* ‘helped’, *stolen* ‘stolen’, and there are other words also where /o/ is regular, such as *dohtor* ‘daughter’, *god* ‘god’, *gold* ‘gold’,[1] even perhaps when the following vowel is */oː/ > OE /u/, hence *nosu* ‘nose’ < **nusō*.[2] But in many other cases no lowering occurs in OE even when the lowering is found elsewhere, especially in OHG. Typical examples are: *bucca* ‘buck’, *fugol* ‘bird’, *full* ‘full’, *ufan* ‘from above’, *wulf* ‘wolf’, against OHG *boch*, etc. A third group of words show variation in forms, such as *cnocian* ~ *cnucian* ‘knock’, *spora*

~ *spura* ‘spur’, *spornan* ~ *spurnan* ‘spurn’. In all these cases, however, forms with /u/ are in an obvious majority.[3]

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[1] But in *ġeoc* ‘yoke’, alongside *iuc*, ⟨eo⟩ indicates palatal diphthongization of */u/, see §5.60.

[2] If this is the origin of *nosu*. The parallel form *duru* suggests **duruz*, where lowering would not take place. See further Campbell (1959: §612).

[3] It is not necessary to suppose that the later lowering of proto-OE */eu/ > /eo/ is relevant here, nor that similar lowerings, such as OSax *breost* ‘breast’ against *treuwa* ‘troth’, where /w/ prevents lowering, are relevant. These shifts belong more properly to the histories of the individual languages. For early OE examples indicating /eu/ see §2.33.

3.11 As stated in §3.5, the presence of a following */m/ or /n/ + consonant should inhibit the lowering of */i, u/ described in §§3.9–10. In effect, however, examples are restricted to retention of */u/, see however §§3.13–14, where it is most regularly seen in the pa.parts. of strong verbs of class III, such as *swummen* ‘swum’, *bunden* ‘bound’, *sprungen* ‘sprung’, cf. *holpen*, and in the class IV verb *numen* ‘taken’, cf. *stolen*. Other more isolated examples include forms such as *cuman* ‘come’, *hund* ‘hundred’, *fruma* ‘beginning’, *guma* ‘man’ and other masc. *n*-stems of the same structure. The same retention of */u/ before */n/ standing alone is found quite often in OE, for example, *hunig* ‘honey’ (< **hunag*-), *þunor* ‘thunder’, *wunaþ* ‘he dwells’, and there is also variation in the other WGmc languages.

3.12 When */e/ was followed by */m/ or /n/ + consonant, then, as stated in §3.5, it was regularly raised to */i/ in Gmc. The change is most regularly seen in the present forms of strong verbs of class III, such as *swimman* ‘swim’, *bindan* ‘bind’, cf. *helpan* ‘help’, and the class IV *niman* ‘take’ also belongs here. Typical of the development outside the strong class system is *wind* ‘wind’, cf. Lat *ventus*. The change is often obscured by later developments involving loss of the nasal, such as *fīf* ‘five’, cf. Goth *fimf*, Grk *pente*, for further examples see §§3.13–14.[1]

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[1] Unlike the situation described in §3.11, here single */n/ does not cause raising, hence *cwene* ‘woman’, and parallel forms in other Gmc languages. For *wine*, etc. see §3.6.

III Loss of nasals and compensatory lengthening

3.13 Early in the PrGmc period a nasal was lost between a vowel and a voiceless velar fricative, with nasalization and compensatory lengthening of the vowel, so that the sequences */iŋx, uŋx, ɑŋx/ developed as */ĩːx, ũːx, ɑ̃ːx/. It seems reasonable to suppose that this development happened at much the same time as the processes of vowel harmony discussed in §§3.5–12, for this explains the failure of */e, o/ to appear in these contexts.

Under those circumstances the high vowels may be assumed eventually to lose their nasalization and develop in parallel to other long vowels. Thus we find OE *þēon* ‘thrive’ < *þīon* < **þīxan* < **þinxan*, cf. Goth *-þeihan*, OSax *thīhan*, *þūhte*, pret. of *þynċan* ‘seem’, *fūht* ‘moisture’, *ūhte* ‘dawn’. In the case of */ɑŋx/ the lengthening to */ɑ̃x/ was sufficiently late to prevent its merger with IE */ɑː/ which shifted throughout Gmc to /oː/, see §3.3, for it appears as /ɑː/ in Goth, NGmc, OHG, and OSax. In OE and OFris, however, the nasalization is retained, and there is a late Anglo-Frisian rounding to /oː/. Further details and discussion are to be found in §§3.22, but typical examples include *þōhte* ‘he thought’ < **þanxte*, cf. *þenċan* ‘think’, *hōn* ‘hang’ < **hanxan*, cf. *hangen* ‘hung’.

3.14 In OE, OFris, and OSax only, and hence to be placed at a much later date than the change discussed in §3.13, the PrGmc loss of nasal between a vowel and a voiceless velar fricative, with compensatory lengthening of the vowel, was generalized to all fricatives, so that nasals were then lost in the groups */mf, nθ, ns/. In other respects the change was identical, so that */i, u/ were simply lengthened to /iː, uː/, whilst, at least in Anglo-Frisian,[1] */ɑ/ when lengthened and nasalized was rounded to /oː/. Typical examples of the lengthening of */i, u/ are: *fīf* ‘five’, cf. Got *fimf*, *fīfel* ‘monster’, *līþe* ‘gentle’, cf. OHG *lindi*, *sīþ* ‘journey’, cf. Got *sinþs*, *gūþ* ‘war’, cf. OHG *gund-*, *mūþ* ‘mouth’, cf. OHG *mund*, *ūþ-* prefix, cf. Got *unþa-*, *dūst* ‘dust’, cf. OHG *tunst*, *ūs* ‘us’, cf. OHG *uns*. Typical examples of the lengthening and shift of */ɑ/ are: *sōfte* ‘soft’, *ōþer* ‘other’, *sōþ* ‘true’, *tōþ* ‘tooth’, *gōs* ‘goose’, but see §3.22 for further discussion and details.[2]

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[1] Occasional forms with /oː/ are also found in OSax.

[2] Also to be taken here is the runic name and name prefix *ōs-*. See also van Loey (1970: §29) for discussion of this element in Dutch place-names and evidence of both lengthening outside OE, OFris, OSax and rounding outside Anglo-Frisian.

3.15 The changes described in §§3.13–14 may be approximately characterized as follows, where the restriction to [+back] fricatives which applies in PrGmc is lost with the generalization of the change in WGmc:

$$\mathrm{V}\begin{bmatrix}\text{+cons}\\ \text{+nas}\end{bmatrix} > \begin{bmatrix}\mathrm{V}\\ \text{+long}\end{bmatrix}\varnothing\ /\ \underline{\hspace{3em}}\begin{bmatrix}\text{+cons}\\ \text{+cont}\\ \text{+back}\end{bmatrix}$$

IV Diphthongization

3.16 One clear characteristic of the WGmc dialects is that diphthongs were frequently developed, either in the context of a following geminate approximant, or due to resolution of hiatus forms. In all cases this diphthongization is manifested by the vocalization of an approximant. In the cases of a following geminate consonant the source may either be the PrGmc geminates */jj, ww/ or the WGmc geminate */ww/. The source of the former geminates is obscure, see further §4.2, whilst the source of the latter is West Germanic gemination, see §4.11. There are several sources of hiatus, discussed in §3.19.

3.17 In PrGmc the approximants */j, w/ were geminated after a short vowel to */jj, ww/, and then in WGmc there was vocalization to */ij, uw/.[1] Thus the sequences */ijj, ajj, iww, eww, aww/ developed into diphthong + approximant or, in the case of */ijj/, long vowel + approximant sequences, giving WGmc */iːj, aij, iuw, euw, auw/. These sequences then develop normally into PrOE as */iːj, ɑːj,[2] iow,[3] eow, æɑw/, see §§5.7–9, 41.[4] Typical examples of these changes are: *_frijjō > Frīġe(-dæġ)_ ‘Friday’, *_klajj- > clǣġ_ ‘clay’, *_triwwi > trȳwe_ ‘true’, *_brewwan > brēowan_ ‘brew’, *_glawwa > glēaw_ ‘wise’.

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[1] In NGmc the development was to _ggj_, _ggw_, in Gothic to _ddj_, _ggw_ by Holtzmann’s Law. For a discussion and summary of the many problems surrounding this change see Prokosch (1939: 92–3), Collinge (1985: 93–101).

[2] But after monophthongization of */aij/ > */ɑːj/ _i_-umlaut operates normally with fronting of */ɑː/ due to the immediately following */j/, and consequently the later development is to /æːj/. Of course the */j/ here belongs to the following syllable, see §5.86 and Colman (1986).

[3] In this case the new diphthong must be followed by */i/, see §3.7, and hence it is later subject to _i_-umlaut, for details of which see §5.83.

[4] In these positions /w/ would regularly be lost in such positions through apocope, but it is frequently analogically restored, see §§7.72–3.

3.18 By WGmc gemination, see §§4.11–14, */w/ would be lengthened to */ww/ if followed directly by */j/, and hence the sequences */iwwj, awwj/ would arise. Diphthongization to */iuwj, auwj/ then followed and the further developments of the diphthong, with later _i_-umlaut due to the following */j/, are as expected in OE, giving WS *_īo > *īe > ī, ȳ_, nWS _īo_; WS _ēa > *īe > ī, ȳ_, nWS _ēa > ē_. Additionally, however, one of the two remaining intervocalic approximants is then lost, the usual situation being that */j/ is lost after the high diphthong, */w/ after the low diphthong.[1] Hence we find: *_niwwja- > *niuwja- > *nīewja- > nīwe_, nWS _nīowe_ ‘new’, *_hawwj- > *hauwj- > *hēawj- > *hīewj- > hīġ_ ‘hay’, nWS _hēġ_. Other examples parallel to _nīwe_ (_nīowe_) are: _glīw_ ‘form’,[2] _hīw_ ‘form’, _hlȳwan_ ‘warm’;[3] examples parallel to _hīġ_ (hēġ) are: _ċīġan_ ‘call’, _frīġea_ ‘lord’, _īġ_ ‘island’, Sea 97 _strēġan_ ‘strew’, _trīġ_ ‘tray’.

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[1] The phonology of the change is obscure, although it clearly has parallels with syncope. The loss of */j/ at least, and hence presumably of */w/, cannot be earlier than

i-umlaut, and one consequence of this is that it is difficult to determine the synchronic distinction which causes */j/ to be lost from original */iwwj/ sequences, */w/ to be lost from original */awwj/ sequences. In this context *īwan*, nWS *ēwan* 'show' with loss of */j/ rather than expected loss of */w/ is perhaps unsurprising.

[2] For *gliġ* see §4.9(2).

[3] Poetical *spīowede*, *spēowede* 'spat' are usually assumed to be analogical on **spīowan* (< **spiwwjan*). Jul 476 *spiowedan* with a short diphthong may be originally from **spiwid-* with transfer to class 2 as **spiwod* and then back umlaut. Various forms of **sĭ̄owan* 'sew', such as CorpGl 1773 *siouu* 'I sew', are equally due to one of the above developments, dependent upon the length of the diphthong, which is uncertain.

3.19 During the period when the WGmc languages still formed a unity, there occurred a process which was to be repeated during the OE period, see §§5.131ff. for details. This was that, when two vowels stood in hiatus and that sequence represented a sequence which corresponded to an existing diphthongal template, the second vowel desyllabified and formed a diphthong with the preceding vowel. In WGmc this process of hiatus resolution by means of diphthongization was restricted to sequences of short vowel + */u/. These sequences could arise in three ways: (1) loss of */w/ before */u/; (2) vocalization of */w/ when word-final; (3) shortening and raising of unstressed */oː/ > /u/, see §3.34. The developments of these hiatus sequences are discussed in turn below.

(1) In WGmc */w/ was lost before */u/ (usually < */oː/, see §3.34) so that */ewu, awu/ > */eu, au/. These diphthongs then develop normally in OE, see §5.41. Thus we find in the *wō*-declension OE *clēa* 'claw' < */klæu/ < */klau/ < */kla-u/ < */klawu/ < */klawo/, similarly *þrēa* 'affliction'. Nom.acc.pl. *fēa* 'few', alongside *fēawe*, *fēawa*, is from neut.pl. */fauwoː/, cf. *gearu* 'ready' nom.acc.pl.neut., and similarly *frēa* 'lord' is from inflected forms, such as */frawun/. Amongst neut. *wa*-stems we find the plural forms *cnēo* 'knees', *trēo* 'trees' < */knewoː/, etc.

(2) Similar to the examples under (1) are those where a word-final vowel is lost in WGmc after */w/, causing the approximant to vocalize and then diphthongize with a preceding vowel, for example, */strawa/ > */strau/ > OE *strēa* 'straw', */cnewa/ > */cneu/ > OE *cnēo* 'knee'. Further typical examples include: **hrēa* 'raw', *trēo* 'tree', *þēo* 'servant'. In many cases *w* is analogically restored in OE, although the status of such restoration is obscure, see further §§7.72–3, giving more usual *strēaw*, *hrēaw*.

(3) A number of forms developed hiatus sequences which could lead to diphthongization merely by the shortening of unstressed */oː/ > */u/, hence */θrioː/ > */θriu/ > OE *þrīo* 'three' neut.pl. In *hīo* 'she', and the fem. demonstratives *sīo*, *þīos* the fem. inflexional *-u* has been added to stem-final *-i*. Further diphthongization is seen in *fīond* 'enemy', *frīo* 'free', *frīond* 'friend', *blīo* 'colour', where */u/ is due to */u/ in the final syllable of accusative forms, cf. §3.10, and see Ritter (1909).

V Influence of */z/

3.20 Where in WGmc */i, u/ would normally remain, that is, most frequently before a following high vowel, see §§3.9–10, these vowels in the development of OE are nevertheless lowered before an immediately following */z/ (which at a later point is rhotacized to /r/, see §§4.15–16, also, for the chronology, Luick (1914–40: §107A2)). The change is most obviously seen in various pronominal forms., such as *we*, *me*, *ġe*, *he*, *þe*, cf. Goth *weis*, OHG *wir*, etc.[1] Other examples include the prefixes *or-*, *tor-*, cf. Goth *uz-*, *tuz*, OHG *ur-*, *zur-*, and *meord* 'reward' (< **merd* by breaking), cf. Goth *mizdo*.[2] See further Sievers (1900: 23ff.), Campbell (1939: 82–3).

[1] Presumably the change occurs in weak forms of the pronouns, which may then be lengthened (> *wē*, etc.) under stress.

[2] *Leornian* 'learn' with both *liornia* and *leornia* in Nbr can only be placed here with some uncertainty. The verb shows traces of being originally of weak class 3 in OE, and the variation of vowel in Nbr at first sight suggests a late WGmc or proto-OE variation between */i/ and */e/ due to variation of the formative element between */j/ and */æː/, which is supported by OFris *lirnia*, *lernia*. On the other hand, the breaking diphthong in these forms must be from */e/, since breaking before /r/ + consonant fails in the context of following /i,j/, see §5.24n5.

3.21 A development before the sequences */zdi, zdj/ which is difficult to understand in the context of §3.20 would appear to account for *reord* 'food', *reord* 'voice', *ġereord(e)* 'voice', *heordan* 'hards of flax'.[1] These words must have had the stem vowel */a/ in Gmc, cf. Got *razda* 'voice', and the stem vowel has developed to /e/ in this particular sequence, with later breaking and then *i*-umlaut, since *-io-* is normal in Nbr, see Campbell (1959: §124n4) for details.[2] But any explanation of this development remains to be found.

[1] Note also *briorde* 'point' dat.sg. (Li 1×, Ru2 2×) against MkGl(Li) 13.27 *breard*.

[2] The ME form *rearde* 'voice' (Aȝenbyte of Inwit) suggests a development from **rærde* but this is equally difficult in the absence of the expected *i*-umlaut, and therefore it cannot be entirely relied upon. Note, however, *breard* in n1 above. Perhaps such forms were variant *ō*-stems rather than *jō*-stems.

VI Long vowels

3.22 The long vowel system which developed in PrGmc and is described in §3.3 was generally well preserved in the Gmc dialects leading to OE. One major exception to this, however, concerns the development of the low long vowel indicated in §3.3 as */æː/. As will be observed, */æː/ is the only low long vowel and there is no front/back contrast in operation. From the structural point of view, therefore, the vowel as it develops in WGmc may be considered to be neutral in this last respect, that is, */aː/. Confirmation of this comes from Latin loan-words, such as *strāta* ‘street’, where the Latin vowel is interpreted as Gmc */aː/, see §3.23. In many WGmc languages the consequent development is entirely expected, with /aː/ throughout, for example, OHG *tāt* ‘deed’, *māno* ‘moon’. In OE and OFris, however, the situation is somewhat different, for there */aː/ develops as either /æː/ or /eː/ except immediately before a nasal, when the development is eventually to /oː/.[1] Typical examples are: OE *dǣd*, *dēd*, OFris *dēd* ‘deed’, OE, OFris *mōna*. The development before nasals no doubt indicates a merger with the types represented in OE by *þōhte* ‘thought’, *tōþ* ‘tooth’, discussed in §§3.13–14. Confirmation that the development of */aː/ > /oː/ must have been through a stage *[ɑː] is given by an OE form such as *samcucu* ‘half-dead’, which was subject to early shortening. Since the result is /ɑ/, the shortening must have been from *[ɑː] rather than /oː/.

[1] Additionally, the development to /ɑː/ before /w/ in WS forms of the type *sāwon* ‘they saw’ should be noted, see §5.21. But the restriction of such forms to WS demonstrates that in proto-OE the vowel must have been */æː/ with later raising in Angl to /eː/, see §3.25.

3.23 A natural starting-point for the discussion of these forms is the isomorphism between the development of */aː/ > /æː, eː/ and the special development of */aː/ > /oː/ before a nasal. In Gmc dialects where there is no rounding and retraction of the nasalized vowel there is also no development of a clearly front vowel phoneme elsewhere. It is reasonable to suppose, therefore, that with nasalisation there develops a retracted variant of */aː/ which eventually causes a structural contrast in terms of backness between the unnasalized and nasalized vowels. This contrast is at a later stage reinforced by the monophthongization of the Gmc diphthong */ai/ > */ɑː/ in OE, see §§5.7–9.[1] Since in the Gmc dialects underlying OE there was originally only one low short vowel and one low long vowel, which may therefore be phonemicized as /a, aː/, the above developments cannot be further explained phonemically. Rather, it must be assumed that the low long vowel had always remained phonetically front, that is, approximately [æː], whilst the short vowel was further back, although the degree of backness cannot be ascertained. It therefore follows that the alleged OE, OFris shift of */aː/ > /æː/ is an artefact of phonemic theory, and that there is no reason to suppose that, except before nasals, the Gmc long low vowel retracted significantly at any period in the development of OE.[2]

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[1] In OFris, however, the monophthongization of */ai/ is to /æː/, see §5.9.

[2] There has been much discussion of the Gmc development of */æː/ (< IE */eː/). Whilst most writers, such as Bülbring (1902: §96), Luick (1914–40: §§115–18), Girvan (1931:

§§34–5), Campbell (1959: §129 and n1), argue that there was a shift in Gmc to **ā* with later fronting in OE and OFris to *ǣ*, *ē*, the minority view that **ǣ* remained (with later raising to *ē* in OFris and some OE) is expressed in J. Wright and Wright (1925: §119). For further discussion see Campbell (1947) and references therein. It should be pointed out that the account presented here is essentially neutral between these views, since it accepts a phonemic shift to */aː/ but a phonetic retention of *[æː].

3.24 From the above it may be inferred that phonetically Gmc *[æː] retained approximately that pronunciation throughout the period. In OE this pronunciation was then equally retained in S dialects, that is, WS and Kt, hence *dǣd* 'deed', *hǣr* 'hair', *mǣġ* 'kinsman', *þǣr* 'there', etc., and also the pa.pl. of strong verbs of classes IV and V, such as *bǣron* 'they bore', *stǣlon* 'they stole', *sǣton* 'they sat', *wǣron* 'they were'.[1]

[1] It is often stated that Kt has /eː/ for Gmc */æː/. Although this is true in terms of the data, it is most probable that the original forms were */æː/ and that the development to /eː/ is to be interpreted as part of the rather later Kt *æ*-raising, see §§5.189–91, also Crowley (1986: 105–8).

3.25 In both OFris and N. (that is, Angl) dialects of OE, however, there occurred at some stage a raising of */æː/ > /eː/. Thus in Angl we find *dēd*, *hēr*, *mēġ*, *þēr*, *bēron*, etc.[1] The relative dating of this raising is unclear, and especially it is uncertain whether this was a development shared between OFris and Anglian in the pre-settlement period, that is, the period of Anglo-Frisian unity, or was a later independent development in the separate languages.[2,3]

[1] In WS *ǣ* occurs without significant exceptions, although note poet, *mēċe* 'sword' which occurs throughout. On the other hand the compound *mēċefisċ* 'swordfish' occurs with both *ē* and *ǣ*. Clearly *mēċe* has special status. In Angl there are a few forms with ⟨ǣ⟩ in early Nbr texts, such as LRid 12 *ġiwǣde* 'dress', RuneAuzon *þǣr* 'there', CorpGl 1852 *sprǣċ*, but these are probably due to confusion with ⟨ē⟩ under influence from contemporary Lat, see also Lindelöf (1901: §26). The only frequent examples of ⟨ǣ⟩ for ⟨ē⟩ are in Ru1, where they occur approximately in the proportion 7:10 (Campbell, 1959: §129n1). Doubtless this is merely one sign of WS influence on the scribe of this text.

[2] DeCamp (1958) argues that the development in OE is to be dated to the sixth or seventh centuries, but under Frisian influence, cf. Samuels (1971).

[3] OE *swē̆*, *swǣ̆*, *swā̆* 'so' causes some difficulties. The predominant forms are EWS *swā̆*, *swǣ̆*, LWS *swā̆*, eNbr, Ps(A) *swē̆*, lNbr *swǣ̆*. The earlier forms appear to be, therefore, WS *swǣ̆*, Angl *swē̆*, the later forms WS *swā̆*, Angl *swǣ̆*. Whilst the earlier forms suggest a direct development from Gmc *[æː] with shortening when unstressed, the later forms cannot be so derived. It is more probable that when long they have been redeveloped from weak forms, with WS *swā* being developed from weak *swa* which in turn is due to the special retraction of /æ/ in non-lexical items, see §6.4 and n1. In contrast to this variety of forms only *hwā̆* 'who' exists in OE. Although it would be possible to equate *swē̆*, *swǣ̆* with Goth *swe* in order to account for the contrast, it is far more probable that we have to do with variable selection of weak v. strong forms.

3.26 A further, but quite separate, development of the Gmc long vowels appears to be evidenced in the OE monosyllables *bū* 'both', *hū* 'how' (also OFris, OSax), *tū* 'two'. All forms are from Gmc */oː/ and in the case of the last two are from **hwō*, **twō*, which suggests that the raising of */oː/ > /uː/ takes place in such monosyllables after */w/. *Bū* may then be explained transparently on the analogy of *tū*. The same explanation, however, cannot be the source of *cū* 'cow', which may have its source in allomorphic variation between */oː/ and */uː/ in IE, note here that /k/ < IE */g^{w}/ and cf. OFris *kū*, ON *kȳr*, see also Brunner (1965: §69A) and references, Campbell (1939: 83).[1]

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[1] Naturally, if the conditioning environment includes preceding */w/, *tō* 'to' never shows signs of the change.

VII Unstressed vowels

3.27 In PrGmc the system of pitch accentuation outlined in §3.4 had the consequence that the same series of vowels and diphthongs occurred in unaccented as in accented syllables, the only exception being that Gmc */eː/, which was an innovation in Gmc, occurred only in accented syllables.[1] The shift to stress accentuation, however, meant that there began during the Gmc period a series of shifts which can be generalized as a set of reductions in vowel length, so that, for example, short vowels were lost and long vowels were shortened. This process continued during the OE period, see §6.13. In the following paragraphs we deal firstly with loss of short vowels, secondly with shortening of long vowels, and finally with monophthongization of diphthongs. In this context it is important to note that all IE final consonants were lost at an early stage in PrGmc with the exceptions of */s/ (including the allophone *[z]) and */r/ and that a following nasal was probably lost via the route of nasalization of the preceding vowel. For details of such consonantal changes see §4.10.

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[1] Hence it follows that if we assume the system in §3.2 the short vowels in unstressed syllables were */i, e, a, u/. Note particularly that */a/ is from IE */a, o, ə/. It is unclear when this merger took place with respect to the various losses described in §3.28, for no distinction in result ensues.

3.28 After the loss of final IE consonants (see §3.27), the mid and low short vowels */e, a/ were lost in absolute finality, for example, OE *ber* 'bear!', cf. Lat *fer* < **fere*, *wāt* 'he knows', cf. Grk *οἴδα*, *οἴδε*, *wulfes* 'wolf' gen.sg. < **wulfæs* < **wulfas* < **wulfasa* < **wulfoso* (see §3.27n1) and all other examples of the gen.sg. of *a*-stems, see further §3.31n1.

3.29 The high short vowels */i, u/ were more resistant to change, in that loss only occurred after two or more syllables. Examples of trisyllabic loss of */i/ are the more common, hence gen.dat.sg. of weak nouns: _guman_ < *_gumaniz_,[1] *_gumani_; dat.pl. _-um_ < *_-umiz_; 2,3sg.,3pl.pr.ind.: Angl _rīdes_ < *_rīdisi_, _rīdeþ_ < *_rīdiþi_,[2] _rīdaþ_ < *_rīdanþi_. A typical example of trisyllabic loss of */u/ is the acc.sg. of masc. weak nouns and other disyllabic consonantal stems: _guman_ < *_gumanũ_ (< *_gumanum_, see §3.27), _brōþor_ < *_brōþurũ_ < *_brōþurum_.[3]

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[1] Trysyllabic loss of a high vowel in absolute finality was no doubt roughly contemporaneous with the losses described in §3.28, whilst the losses before */z/ were probably contemporaneous with the changes described in §3.31, which should be consulted.

[2] But for these forms see further §3.30.

[3] A number of exceptions to trisyllabic loss are evidenced, notably Angl _milċ_ 'milk', generalized from gen.dat.sg. *_milukiz_, *_miluki_ > *_milyċ_ by _i_-umlaut and palatalization and hence _milċ_, cf. WS _meolc_ showing trisyllabic loss. Similarly _ealu_ would appear to be the result of equation of the initial vowel with gen.sg. *_æleþ_ < *_aluþiz_ with iterative _i_-umlaut, giving nom.sg. *_ælu_ which would then be subject to _u_-umlaut, see Weyhe (1906: 78). Although the process of second fronting appears irrelevant, influence from Merc cannot be entirely ruled out, given the forms _meolc_, _milċ_ above.

3.30 Where unstressed */e/ remained, it was then either preserved or lowered to */æ/ before */r/, for example, _æfter_ 'after', _hwæþer_ 'which of two', _fæder_ 'father', cf. RuneAuzon _ġibrōþær_ and see Stiles (1988b: 339), also §6.49. In all other contexts, however, it was raised to */i/, for example, *_fōtez_ > *_fōtiz_ > OE _fēt_ 'feet' with _i_-umlaut followed by apocope of */i/ in OE, *_hnutiz_ > OE _hnyte_ 'nut' gen.sg., *_rīdes_ > *_rīdis_ > Angl _rīdes_. This raising occurs even before */ɑ/, for example, _lȳtel_ 'little' < *_lūtilaz_ with _i_-umlaut, cf. here the failure of stressed */e/ to raise in the same environment, §§3.5–9.

3.31 At a later period during the development of WGmc, final *[z] which had been retained during the loss of PrGmc final consonants, see §§3.27, 4.10, became subject to loss finally, typical examples being nom.sg. of _a_-stems *_-az_ > *_-a_, nom.pl. of athematic stems *_-iz_ > *_-i_, and, exceptionally, the type *_milukiz_ > *_miluki_ referred to in §3.29n3.[1] One consequence of this loss of final *[z] was that *_-a_ once more occurred in absolute finality, and then the change discussed in §3.28 was repeated with respect to *_-a_, giving developments such as *_stainaz_ > *_staina_ > *_stain_ > OE _stān_ 'stone'. Where *_-a_ was preceded by a consonantal cluster ending in either a resonant or an approximant, then resyllabification took place, with the development of either a syllabic resonant, such as *_fingra_ > _fingr_ 'finger' (see further §§6.38–40), or vocalization of the approximant, such as *_barwa_ > *_baru_ > _bearu_ 'grove',[2] *_herja_ > *_heri_ > _here_ 'army'.[3] The loss does not occur in other positions; note especially that it does not occur with *_-a-_ as the connecting element of compounds, hence **dagalīk* with syncope of the vowel (> *dæġliċ* 'daily') only occurring in OE, see §6.15.

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[1] It seems probable that *[s] was often retained finally in the antecedent of OE and the other North Sea Germanic languages, hence OE nom.pl. of *a*-stems *-as*, for example, *stānas* 'stones', 2sg.pr.ind., for example, *rīdes* 'thou ridest'. This would then be the explanation for the retention of **-a* in the gen.sg. of *a*-stems, for example, *stānes* < **stainas*, see §3.28. See also Brunner (1965: §234A4).

[2] The diphthong in the stem is from inflected forms such as *bearwas* 'groves'.

[3] Such forms are more common than sometimes appears to be suggested.

3.32 In general the Gmc long vowels in unaccented syllables were merely shortened without further direct shift, hence **-ī* > **-i*, for example, **rīdī* > **rīdi* > *rīde* 'ride' pa.subj.sg., **andīaz* > **andī* > **andi* > OE *ende* 'end' by *i*-umlaut, and **-ǣ* > *-æ* (later *-e*), for example, *fremede* 'performed' < **fremidæ* < **framidæ* < **framidǣ*. In the case of *-ō when shortened, this usually developed as **-u* in N and WGmc, the nearest equivalent short vowel, for example, 1sg.pr.ind. as **rīdō* > Angl *rīdu* (often *rīdo* with OE lowering, see §§6.55–8), nom.sg. of ō-stems as **lufō* > *lufu* 'love' and other similar forms. However, in the context of a following nasal, lowering to */a/ (presumably originally *[ã]) occurred, hence acc.sg. of ō-stems, such as **lufōm* > **lufa* > OE *lufe*, and nom.sg. of fem. *n*-stems, such as **tungōn* > OE *tunge* 'tongue'. Trimoric long vowels in unaccented positions were merely shortened to bimoric long vowels, hence nom.sg. of masc. weak nouns such as **gumōo* > **gumō* with later development in OE to *guma*, see §§6.27–8.

3.33 The Gmc diphthongs */ai, au/ when occurring in unstressed syllables monophthongized to */aː, oː/, and */aː/ subsequently developed as OE /æː/, see §§3.22–4 for discussion. For exemplification of this change see §6.27(4).

VIII Raising of back vowels

3.34 By a process not dissimilar to those discussed in §§3.5ff. PrGmc unstressed */o(ː)/ was raised to */u(ː)/ in certain circumstances. These were that the mid vowel should be followed by either */u/ in the following syllable or directly by the labial nasal */m/. Since, see §3.27n1, IE */o/ had usually developed to */a/, it must be assumed that even in PrGmc such environments prevented lowering and that *[o] persisted there as an allophone of */a/. The actual raising, however, does not occur in Gothic and must be later than the merger referred to in §3.27n1. Examples of the raising of *[o] are: (1) with following */m/: dat.sg. of *a*-stems, for example,

**stainomiz* > **stainum* > *stānum*, cf. Goth *stainam*; (2) with */u/ in the next syllable: acc.sg.,pl. of masc. *n*-stems, for example, **gumonu* > **gumunu* > **gumun* (where *guman* is introduced from other parts of the declension), and similarly for disyllabic consonant stems, such as **brōþoru* > **brōþuru* > OE **brōþur* with lowering to *brōþor*, and so for pl. **brōþoruns*. Examples of the raising of */uː/ are: (1) with following */m/: dat.pl. of ō-stems and similarly fem. *n*-stems, such as **lufōm*, **tungōm* > OE *lufum*, *tungum*; (2) with */u/ in the next syllable: acc.sg.,pl. of fem. *n*-stems, such as **tungōnu* > **tungūn* where influence of other forms gives OE *tungan*, but cf. CædH 9 *foldu*, nouns in **-ōþuz* < IE *-ātus*, such as **fiskōþuz* > **fiskūþuz* > OE *fiscoþ* 'fishing'. Note particularly here that the preterite of weak class 2 verbs varied because of variation in inflexion such as 3sg. **-ǣþ*, 3pl. **-unþ*. Consequently the development of the thematic *-ō- should have been to **-ū-* where */u/ followed but otherwise remaining as *-ō-. In OE shortening and later lowering of /u/ would normally give /o/ in the first instance, whilst *-ō- would shorten as elsewhere to /ɑ/, see §6.28. The two developments compete with one other, although the former is dominant in WS, for example, *lufode* 'loved', whilst the latter is usual in other dialects, for example, *lufade*. But elimination of the predicted allomorphy is regular in all dialects. The same phenomenon affects superlative forms, where **-ōst* > **-ūst* in inflected forms such as dat.pl. **-ōstumiz* > **-ūstumiz*, and this leads to the OE variation *-ost*, *-ast*. The former is more widespread, but reduction is more frequent still, giving *-est*, see §6.64.

4

The consonants in Germanic

I Primitive Germanic

4.1 It is not possible within the scope of this work to give more than a brief outline of the development of consonants in Germanic prior to the period of Old English. Nor is any attempt made here to discuss the consonant system of Indo-European. Further, particular attention is paid only to those developments in later periods of Germanic which lead directly to the evolution of the OE consonant system. These remarks are particularly crucial in that the consonant system of Indo-European has been in recent years the subject of much debate and discussion. In particular the work of Gamkrelidze, Ivanov, and Hopper has prompted an altogether new consideration of the IE consonant system.[1] In what follows a rather conservative view of that system and its evolution into Gmc is taken, on pragmatic grounds only, and the debate over the structure of IE is viewed only from the sidelines. Thus a consonant system for IE of the type outlined in Lehmann (1952: 99) is assumed for present purposes.

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[1] An excellent discussion of and bibliography to the controversy may be found in the relevant sections of Collinge (1985), to which should be added in particular Bomhard (1988) and the further items in the bibliography therein.

4.2 The PrGmc consonant system, whether derived by means of Grimm's Law or by some other route, see Collinge (1985: 63–70), may be reconstructed as follows, see also Moulton (1954, 1972), Normier (1977: 185–90), and cf. the table for proto-OE in §7.1:

	Labial	*Dental*	*Palatal*	*Velar*[1]
Voiceless stops	/p/	/t/	–	/k/
Voiceless fricatives	/f/	/θ/	–	/x/

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	Labial	*Dental*	*Palatal*	*Velar*[1]
Voiced obstruents	/b ~ θ/	/d ~ ð/	–	/g ~ ɣ/
Sibilants	–	/s ~ z/	–	–
Nasals	/m/	/n/	–	–
Liquids, approximants	–	/l, r/	/j/	/w/

Geminate consonants also occurred, but on a much reduced scale compared with later stages of Gmc. Gemination is found medially of voiceless stops, liquids and nasals, and */s/, for example, OE *hoppian* 'hop', *cnotta* 'knot', *liccian* 'lick', *wulle* 'wool', *steorra* 'star', *swimman* 'swim', *rinnan* 'run', *wisse* 'knew'. For the main source of OE geminate consonants see §4.11. Such geminates are usually of very early origin, but a subgroup of Gmc geminates appears to be of expressive origin, see generally Martinet (1937) and for geminates before the suffix *-ettan* Marckwardt (1942), also Hogg (1982a) for these and geminates in possibly hypocoristic forms, such as *docga* 'dog'.

[1] The distinction between IE velars and labiovelars, for example, PrGmc */k/ v. */kʷ/ is not relevant for the later developments, and the latter are therefore treated here as sequences of consonant + */w/.

4.3 The major allophonic variation in PrGmc consonants which may be safely reconstructed occurs within the series of voiced obstruents, where we may postulate stop articulation *[b, d, g] in gemination and after a nasal, and also initially in the cases of *[b, d], with fricative articulation *[β, ð, ɣ] elsewhere. Hence we find the following stops in Gothic: (1) initially: *barn* 'child', *lamb* 'lamb'; *dags* 'day'; (2) after nasals: *bindan* 'bind'; *briggan* 'bring' (⟨gg⟩ = [ŋg]); and fricatives medially in: *arbi* 'inheritance'; *fadar* 'father'; *giban* 'give', *dags* 'day'. Other allophonic variations include: (1) *[h] as the allophone of */x/ initially, for example, Goth *haban* 'have';[1] (2) *[ŋ] as the allophone of */n/ before velars, for example, *briggan* above; (3) *[z] occurred already in IE as the allophone of */s/ before */d/, for example, Goth *razda* 'speech'. For further details, see Moulton (1972: esp. 170–3).

[1] But */x/ remained as a velar fricative medially, even when single, see §7.51.

II Verner's Law

4.4 Whilst PrGmc still retained variable accentuation rather than the left-strong system of stress accentuation which later developed, see firstly §3.4, the Gmc voiceless fricatives became voiced in voiced surroundings when the preceding syllable was unaccented.[1] This shift, known as Verner's Law after the publication of the discovery in Verner (1877), causes the voiceless fricatives to merge with the fricative allophones of the voiced obstruents, for example,

*/f, θ, x/ > *[β, ð, ɣ], or, in the case of *[s], a shift to its voiced allophone *[z]. The change is most obviously observed in the pa.part. of all strong verbs and the non-singular (and 2sg.ind.) preterite forms of strong verbs of classes I–III. Typical examples of the variation from infin. and pa.part. forms would be: **dreifan- ~ *driβan-*; **sneiðan- ~ *sniðan-*; **teuxan- ~ *toɣan-*; **keusan- ~ kozan-*. But the operation of Verner's Law can be seen in other words also, hence **faðēr* 'father' < **faþēr*, and many other individual forms.

[1] For an alternative view of the phenomenon, which sees the Gmc accent shift as an at least three-stage process with Verner's Law occurring before its completion, see Normier (1977). See also the discussion and bibliography in Collinge (1985: 203–16). The pre-Vernerian title of *grammatischer Wechsel* may still be encountered but is scarcely to be recommended.

4.5 The most obvious morphophonological feature of Verner's Law as it develops in OE is that the voiced fricatives (or their reflexes) are frequently extended to the non-singular preterite forms of strong verbs of classes V–VII.[1] Hence we find, for example, *cwǣdon* 'they said' (< *[ð]), *slōgon* 'they slew' (also with further extension to sg. *slōg*), *fengon* 'they took' (also sg.), cf. infins. *cweþan*, *slēan*, *fōn*, the latter two with OE lenition and loss of intervocalic */x/, see §7.45. Levelling away of Verner's Law can also be observed in OE strong verbs, especially those with medial /s/, such as *risen* pa.part. of *rīsan* 'rise', *ġenesen* pa.part. of *ġenesan* 'escape'. Note also strong class I *miþen* 'concealed', *wriþen* 'twisted'.

[1] Examples from class IV are naturally wanting, and this is of no significance for the analogical extension.

III Germanic approximants

4.6 In PrGmc, but perhaps after the time of the accent shift, when */j/ stood after either a heavy syllable or a light unstressed syllable and was preceded by a consonant, an epenthetic */i/ developed between the consonant and */j/. Hence forms due to this development, generally known as Sievers' Law (see Collinge, 1985: 159–74), are of the type **andjaz > *andijaz* (> OE *ende* 'end' nom.sg.), **sōkje > *sōkije* (> OE *sēċ* 'seek!'), contrasting with **xarjaz > here* 'army', **biðje > bidde* 'wait!'. When the following vowel was lost in absolute finality, see §§3.27ff., the */ij/ was then treated in the same manner as in original trimoric sequences, see §3.32, no doubt because only one mora could be lost from a trimoric vocalic sequence.

4.7 At a very early period in the history of WGmc and certainly before gemination occurred, see §4.11, */j, w/ were lost when immediately preceding their corresponding vowel, that is, */i, u/. This development is particularly important in the 2,3sg.pr.ind. of weak class 1 verbs, accounting for the type **framjiþ* > **framiþ* > OE *fremeþ* 'he performs' without gemination, cf. **framjō* > **frammju* (§3.32) > Angl *fremmo* with gemination. The change clearly takes place after the shortening and raising of */o/, since */w/ is lost in such positions, hence fem. *wō*-stems such as **sinwō* > **sinwu* > *sinu* 'sinew', for further examples see §3.19. The same change appears to take place in stressed syllables where */oː/ is raised to */uː/ by the preceding */w/, hence **twō* > *tū* 'two', see §3.26.

4.8 The same loss of */w/ occurs before */i/, hence **ʒarwiþ* > **ʒariþ* > *ġyreþ* 'he prepares', cf. *ġyrwan* inf., and other similar weak class 1 verbs. But in these cases the alternation between forms with /w/ and forms without is often analogically levelled, sometimes in favour of the one, for example, *hyrwan* 'despise', *nyrwan* 'constrain', sometimes the other, for example, *wylian* 'roll', and sometimes variably, for example, *ġyrwan* ~ *ġyrian*, *smyrwan* ~ *smyrian* 'anoint', *syrwan* ~ *syrian* 'devise'. Individual words in which */w/ was lost before an */i/ which was later apocopated include *sǣ* 'sea' < **sǣi* < **sāi* < **saiwi*, *ǣ* 'law', *hrǣ* 'corpse'.

4.9 A variety of developments in WGmc all had similar results, namely an alternation in OE between /j/ and /w/. These are discussed below.

(1) Normally the sequences */iːw, ijw/ developed in OE into the sequences /iow/, later /eow/, hence *brēowan* 'brew', etc., see §3.17. However, if a front vowel immediately followed that sequence, then */w/ was fronted to */j/, giving */iːj, ijj/. These then regularly emerge in OE as /iːj/, and hence forms such as */friːjæs/ > *frīġes* 'free' gen.sg. alongside *frēo* < **frīja-*, **frīju*. But confusion often occurs and hence alongside *frīġes* we find *frēos*, and conversely *frīġum* for *frēoum* dat.pl.

(2) In *wa*-stem nouns where */w/ was preceded by */iː/, the */w/ would appear in absolute finality in the nom.sg. (also acc.sg.) after the loss of **-az*, see §3.31, and the */w/ itself should soon be lost. This, however, would not arise in inflected forms where a vowel remained. Hence there should arise an alternation between stem-final /iː/ in uninflected forms and stem-final /iːw/ in inflected forms, for example, *Tī(ġ)*, **Tīowes* gen.sg. 'the god Tiw'.[1] In early texts especially the nom.sg. form extends to other cases, such as *Tīġes*, but generally the strong tendency is to reintroduce /w/ in the uninflected forms. This should give forms with the diphthong /io/, to which /w/ is usually added analogically, see §3.17n4, but /w/ may simply be added to forms with /iː/ only. Examples of the variation found as a result of these changes include: EpGl, ErfGl 767, CorpGl 1681 *briiġ*, frequent *brīw* 'brew',

CorpGl 986 *ġīġ*, ClGl2 5 *ġīw* 'vulture', EpGl, ErfGl 1015, CorpGl 2021 *slī*, ClGl1 4112 *slēow*, ClGl2 88 *slīw* 'mullet', ClGl1 3935–6 *Tīġ*, ClGl1 4154 *Tuu* (?error for **Tīw*). The above alternations then influence other forms, notably *glīġ*, *glīġes* 'mirth' alongside *glīw*, *glīow*, see §3.18, and perhaps **nīġe* 'new' beside *nīwe*, see Ekwall (1917c: 295).

(3) The Gmc sequence */ɣw/ where */ɣ/ often arose through Verner's Law, see §4.4, usually simplified to */w/, but before */u(ː)/ at least */w/ was lost and */ɣ/ remained. As under (2) above this led to alternations in OE, this time between /ɣ/ and /w/, for example, Bede 4 33.382.3 *brēġ* ~ *brǣw* 'eye-lid',[2] *hīgan* ~ *hīwan* 'family', *hweogol* ~ *hweowol* 'wheel', *mūga* ~ *mūwa* 'heap'. In the alternation *ēoh* 'yew' ~ *īw*, *ēow*, the latter forms also demonstrate voicing of */x/ by Verner's Law. Other similar forms include *holh* ~ **holwes* (cf. PDE *hollow*), *rūh* ~ *rūwes* 'rough', *horh* ~ *horwes* 'rheum', *rēo* ~ *rēowe* 'blanket', but in these cases the situation is apparently complicated by the introduction of analogical ⟨g⟩ for /x/, see §7.54.

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[1] Of course *īo* often develops to later *ēo*.

[2] *Brēġ* with *-ē-* for æ$_1$ is an Anglianism. The final /j/ here is due to palatalization.

IV Consonant loss

4.10 In PrGmc all final consonants except */s/ and /r/ were lost at a very early stage, but then during the WGmc period final consonants which had arisen by the loss of final vowels, see §§3.28–9, were again lost.[1] When final nasals disappeared in PrGmc they did so only after nasalizing the previous vowel, for consequences of this see for example §3.34. In the WGmc loss of final consonants one clear exception is final */r/, hence OE *fæder* 'father' and many other similar forms. It also seems to be the case that final voiceless fricatives were not always lost, and this would appear to be the explanation of many inflexional forms: gen.sg. of masc.neut. *a*-stems, such as *stānes* 'stone'; nom.pl. of masc. *a*-stems, such as *stānas* 'stones'; 2sg.pr.ind. of verbs, such as Angl *rīdes* 'thou ridest';[2] 3sg.pr.ind. of verbs, such as *rīdeþ* 'he rides', see further Brunner (1965: §234A4). But elsewhere there is variation between forms with and without final consonants, for example, *hæle*, *hæleþ* 'man'. This may imply that the inflexional forms with retention of a final voiceless fricative have been influenced by the need to avoid syncretism of important inflexional forms.

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[1] This development appears to be generally restricted to unstressed syllables, for final consonants remained in monosyllables, hence *hwæt* 'what', *æt* 'at'. *Cū* 'cow' acc.sg. is probably from the nom.sg.

[2] WS *rīdest* in fact shows the same retention of final /s/, since the final /t/ is a later sandhi development from forms such as *rīdes þu*?

V West Germanic gemination

4.11 Perhaps the Gmc consonant change which has the most important morphological consequences for OE is that by which WGmc consonants were lengthened when followed by */j/. This change took place only after a light syllable, hence *dēman* 'judge', *sendan* 'send' without gemination against *fremman* 'perform' with gemination. The change is particularly marked in weak class 1 verbs where the thematic element *-*j*- caused gemination throughout the present tense except where the inflexion began with *-*i*-, that is, gemination occurred in 1sg.pr.ind., pl.pr.ind., subj., pl. imp., infin., and pr.part., for example, *fremme*, *fremmaþ*, *fremme(n)*, *fremmaþ*, *fremmende* against 2,3sg.pr.ind. *fremest*, *fremeþ*, sg.imp. *freme*, and all preterite forms, such as *fremede*. Further such examples are too numerous to list even selectively, but note that the same phenomenon occurs with 'weak present' such as *sittan* 'sit'. Outside the verbal system gemination is found with *ja*-stems, such as *cynn* 'race', *jō*-stems, such as *synn* 'sin', *jan*-stems, such as *wræċċa* 'exile', and similarly for adjectives. The alternations caused by gemination appear to have remained synchronically active in the weak verb system of OE, but elsewhere they came to have no synchronic relevance, especially after the degemination of final geminates, see §§7.80–1.

4.12 One major exception to WGmc gemination occurs with */r/ which is never subject to lengthening. Hence corresponding to *fremman*, see §4.11, are weak verbs of class 1 such as *nerian* 'save' (= /nerjan/). All forms with /rr/ are from parallel Gmc forms, such as *steorra* 'star', see §4.2. Note that in a form such as *nerian* /r/ is from Gmc *[z], which implies that rhotacism had already occurred, see §4.15, since */s/ is geminated, for example, *cnyssan* 'knock'.

4.13 The fricative allophones of the voiced obstruents */b, d, g/, that is, *[β, ð, ɣ], were, when geminated, no longer single intervocalic consonants, and therefore they acquired stop articulation in gemination, see §4.3. Hence we find forms such as *hebban* 'raise' < **havjan*, *liċġan* 'lie' < **liʒjan*, and then alternation between forms with medial /bb, ʤ/ and ungeminated forms with /f, j/,[1] for example, WS *hefþ* 'he raises', *liġþ* 'he lies'. The same would theoretically apply in the case of the gemination of *[ð], note *biddan* 'ask', but in such cases the WGmc shift of *[ð] > [d], see §4.17, also occurs so that no alternation is visible in OE.

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[1] /j/, of course, is due to palatalization of *[ɣ].

4.14 Perhaps slightly earlier than the above changes was another process of gemination by which consonants in a light syllable were lengthened when directly followed by a nonsyllabic liquid. Examples exist in OE only for /p, t, k, x/, such as *æpplas* < **aplos* ‘apples’ and hence *æppel*, similarly *snottor* ‘wise’, *wæccer* ‘awake’, *hweohhol* ‘wheel’. But frequently the ungeminated forms occur, presumably from the nom.sg., hence *snotor*, *wæcer*, and, with loss of intervocalic */x/, *hwēol*. Other forms similar to *hwēol* are *ēar* ‘ear of corn’, cf. Nbr *æhher*, *tēar* ‘tear’, cf. Nbr *tæher* (with ⟨h⟩ for ⟨hh⟩). And some forms have generalized the ungeminated forms, such as *æcer* ‘field’.[1]

[1] For gemination of */j, w/ after a short vowel, see §3.17.

VI Miscellanea

4.15 Gmc */z/, which occurred either before a voiced consonant, see §4.3, or as the result of Verner’s Law, was rhotacized to /r/ in both North and West Gmc. The results are most obvious in strong verbs such as *ċēosan* ‘choose’ with pa.pl. *curon*, pa.part. *coren*, and in the comparative of adjectives, such as *blindra* ‘more blind’ < **blindōza*. The rhotacism also occurs in causative weak verbs such as *nerian* ‘save’ (< **nazjan*), *werian* ‘defend’. Other individual instances include *ēare* ‘ear’, *dēor* ‘animal’. Rhotacism must have occurred prior to the time of gemination, since *[z] would otherwise presumably have geminated in appropriate forms, just like other examples of */s/, see §4.12.

4.16 The */r/ which arises by rhotacism behaves like other examples of */r/ and is generally retained, see §4.10.[1] But between a vowel and a consonant, although it is usually retained, for example, *reord* ‘voice’, *heord* ‘hard of flax’, and other forms cited in §§3.20–1, it is sometimes lost, hence *mēd* ‘reward’ beside *meord* and *twīn* ‘linen’, cf. Ger *zwirn*. The group */zn/ also undergoes assimilation to /nn/ in **hrænn* ‘wave’, **rænn* ‘house’, but since first fronting has taken place in these words it must be assumed that the assimilation is later than that change.

[1] But one exception to this occurs in the weak forms of the personal pronouns which are the source of OE *we* ‘we’, *ġe* ‘ye’, *he* ‘he’, *þe* ‘thee’, *hwa* ‘who’, cf. Ger *wir*, etc.

4.17 WGmc *[ð], whether from IE or due to Verner’s Law, is always occluded, hence many forms such as *fæder* ‘father’, *mōdor* ‘mother’, *gōd* ‘good’, *word* ‘word’. The change is of particular consequence in strong verbs showing a Gmc alternation between */θ/ and *[ð] due to Verner’s

Law. Hence verbs such as *weorþan* 'become' have pa.pl. *wurdon*, pa.part. *worden*.[1]

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[1] The variation between WS *fremde*, Angl *fremþe* 'foreign' is due to variant forms of the suffix with alternative accentuation and the consequent operation of Verner's Law.

4.18 There appears to have been a voicing of WGmc */θ/ between */l/ and a following vowel, this voicing occurring before the occlusion discussed in §4.17. Consequently the group */lθ/ develops into OE as /ld/. Typical examples are: *fealdan* 'fold', *wilde* 'wild', *wuldor* 'glory', and further examples arise finally by analogical extension from inflected forms, such as *beald* 'bold', *feld* 'field', *gold* 'gold'. But if */θ/ is followed directly in a compound by a second element beginning with *[h], then the voicing (and hence the occlusion) is prevented, for example, Ch 23, 24, LVD † *Balth-*, *Balð-*. In the early glossaries there is some evidence of confusion between the spellings ⟨d⟩ and ⟨ð⟩ and hence ⟨th⟩. Thus we find EpGl 755, CorpGl 1544 *spilth* for *spild* 'ruin', EpGl 754 *halði* for *healde* 'sloping', also 838 *ōhaelði*, cf. CorpGl 1572 *ōhældi*, CorpGl 1797 *feltha* for *felda* (also frequent BedeH *-felth*).[1]

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[1] But if /lθ/ arises in OE by syncopation, the cluster arises too late for voicing and occlusion to occur, thus *hǣlþ* 'health', *hilð* 'he hides'.

4.19 Initially in both North and West Gmc the group */θl/ shifts to /fl/, hence *flēon* 'flee' and probably *flāh* 'deceptive', cf. Goth *þliuhan*, *gaþlaihan* 'comfort'. For the OE development of */θl/ in medial positions see §§7.11, 13.

5

Old English vowels

5.1 After the operation of the various Gmc and Inguaeonic sound changes discussed in Chapter 3, the stressed vowel system of the ancestor of OE may be assumed to have contained the following vowels and diphthongs: (1) long vowels: */iː, eː, æː,[1] oː, uː/; (2) short vowels: */i, e, a,[2] o, u/; (3) diphthongs: */iu, eu, au, ai/. At this time the diphthongs showed no contrast in length, and simply had the same phonological status as long vowels.

[1] But /æː/ occurred only in proto-WS and proto-Kt, since by the change discussed in §3.25 this sound had already been raised to /eː/ in the proto-Angl dialects, see also §§5.190–1.

[2] Phonologically /a/ at this time was a low vowel without specification for backness, see §3.23. It is possible, however, that phonetically ⟨a⟩ may have represented the back vowel [ɑ].

5.2 A study of the earliest OE texts shows that between the Inguaeonic period and the time of these texts the whole phonological system of OE, including the stressed vowel system, underwent extensive changes. It is impossible to state an absolute chronology for these changes, but it is reasonable to accept that the majority of them occurred between the end of the fourth century, by which time the Anglo-Saxons had begun to settle in Britain, and the beginning of the eighth century, the period of the oldest surviving texts. Despite the difficulties, it is possible to hypothesize a relative chronology for most of the pre-textual (that is, prehistoric) changes, although much remains that is still open to debate. Below we discuss the changes in the stressed vowel system as far as possible in the order suggested by one reasonable relative chronology, although arguments for other chronologies will be discussed at appropriate points. The parallel changes in the unstressed vowel system and the consonant system are discussed in Chapters 6 and 7 respectively.

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I First fronting and associated changes

*(a) Nasalization and later rounding of Gmc */a/*

5.3 By a change almost parallel to the nasalization and rounding of */aː/, see §§3.13–14, 22, Gmc */ɑ/ is nasalized to *[ã] before nasal consonants. However, unlike /oː/ < */aː/ + nasal, the short vowel always remains distinct from OE /o/.[1] In the earliest period the vowel is spelled with both ⟨a⟩ and ⟨o⟩, and later developments would suggest that the scribes were attempting to represent a low back unround or round vowel, that is, [ɑ] or [ɒ], see §2.13. The eventual loss of nasalization is difficult to date, but the presence of the variation between ⟨a⟩ and ⟨o⟩ in a seventh-century Lat loan such as *candel* 'candle', see §5.4, may suggest that the nasalization was present until at least that date. On the other hand, it is probable that the nasalization had been lost by the time of the eventual stabilization of the spelling, see further §5.6. For the later emergence of clearly rounded forms of this vowel, see §5.5. The change of nasalization may, however, be approximately characterized as follows:

$$\begin{bmatrix} \text{V} \\ \text{+low} \end{bmatrix} > \begin{bmatrix} \text{+nasal} \\ \text{+back} \end{bmatrix} / \underline{\qquad\qquad} \; [\text{+nasal}]$$

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[1] For discussion of forms where Gmc */aː/ + nasal is subject to early shortening, see §§5.78, 199–200.

5.4 Typical examples of this change are:[1] *ram* 'ram', *nama* 'name', *camb* 'comb', *man* 'man', *hana* 'cock', *hand* 'hand'.[2] The only significant morphological feature of this change is that to it is due the *a* of the past sg. of strong class III verbs with postvocalic nasal, for example, *bindan* 'bind' with pret. *band, swimman* 'swim' with pret. *swam*. Note that in lNbr the expected **bond*, etc., see §5.5, are analogically reformed to *band*. In the two instances of such verbs where metathesis introduces an *r* between the vowel and the nasal, that is, *arn* 'he ran', *barn* 'he burned', the same variations between ⟨a⟩ and ⟨o⟩ are found as elsewhere, see Hogg (1982b) for the implications of these spellings. Early Lat loans, such as *candel* 'candle', *ancor* 'anchor', show the same spelling variations as native words, but late Lat loans are spelled with ⟨a⟩ even in the Angl dialects, for example, Ps(A) *plant*, where ⟨o⟩ would be expected.

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[1] Only ⟨a⟩ spellings are exemplified; ⟨o⟩ spellings may be substituted according to §5.5.

[2] Beside *and, ond* 'and' is found *end* (EpGl 98 *ænd*), mainly in early nWS texts. The latter is to be derived from **andi* with *i*-umlaut, which existed alongside **anda* in Gmc.

5.5 As stated above, the spelling realizations of this sound change differ considerably according to dialect and date. In the earliest texts the spelling varies between ⟨a⟩ and ⟨o⟩. Thus EpGl has only ⟨a⟩ except in 712 *ōnettae* 'anticipated (?)' < **anhǣtidæ*, where the ⟨o⟩ may indicate lengthening and definitely indicates that *a* + nasal was rounded, see Luick (1914–40: §110A2); ErfGl has almost equal numbers of ⟨a⟩ and ⟨o⟩, similarly CorpGl. In the eNbr poems both ⟨a⟩ and ⟨o⟩ occur, but in LVD ⟨a⟩ is extremely rare. In the earliest Kt texts ⟨a⟩ is used, but in early ninth-century texts ⟨o⟩ is used almost exclusively, as in Ch 1188. This may be due to Merc influence, see Toon (1983: 93–6), for other ninth-century texts show use of both ⟨a⟩ and ⟨o⟩. In EWS usage varies, see Cosijn (1888a: §5) for details. In later texts there is a more clear-cut division between S. texts, where ⟨a⟩ predominates, and the Angl texts, where ⟨o⟩ predominates. Thus in LWS WHom 20 there are no examples of ⟨o⟩, and in OccGl 49 (tenth-century Kt) examples of ⟨o⟩ are infrequent. In these areas, no doubt, the sound had merged with other instances of /ɑ/. Against this, Merc Ps(A) uses ⟨o⟩ exclusively (except for the late Lat loans of §5.4), and in lNbr almost the same is found (with the exception of the analogical forms discussed in §5.4). Ru1 uses ⟨o⟩ more often than ⟨a⟩, and the appearance of ⟨a⟩ there could either be a feature imported from WS, see §1.8n3, or a characteristic of that dialect, see Toon (1983: 115–18). However, by the ME period the sound had merged with other instances of OE /ɑ/ even in these dialects, with the exception of the WMidl. Although the rounding of **ã* indicated by ⟨o⟩ spellings may well have achieved phonemic status in WMerc, that is, /ɔ/, it seems unlikely that such phonemicization occurred elsewhere, even in Nbr, see Hogg (1982b) and, for another view, Kuhn (1961: §§3.3, 4.2).

5.6 The change of nasalization is probably the earliest of those discussed in this chapter, and it may well have taken place at the same time as the Inguaeonic shift of */aː/ > /oː/, see §3.22. The Inguaeonic character of the change is emphasized by parallel developments in OFris, such as OEFris *mon*, OWFris *man* 'man', and in the early OSax Merseburg Glosses, see Rooth (1932), Campbell (1947: 3–4), especially the examples in Rooth (1932: 48). Further, nasalization must have taken place before the period of first fronting (§§5.10ff.), for otherwise **a* + nasal would have developed to /æ/. The rounding of [ɑ̃] > [ɔ] characteristic of Nbr and especially Merc was rather later, for it is not clearly evidenced by the spellings of the earliest texts, such as EpGl. But the regular ⟨o⟩ spellings of Ps(A) and also of early ninth-century Mercianized Kt texts would seem to suggest that the rounding was a feature of the late eighth century, see further Toon (1983: 90–118) for full details and discussion.

*(b) Monophthongization of */ai/*

5.7 A further early change, occurring in all stressed syllables, is the monophthongization of the Gmc diphthong */ai/ > /ɑː/, where the length of the resulting monophthong is due to compensatory lengthening for the loss of *i*. There are a small number of cases where /oː/ rather than /ɑː/ is found, and it is probable that in the majority of these examples this is due to competing low stress forms, since in unstressed positions */ai/ > /o/, see §§6.4–5. Examples of such forms are: *ō* ‘ever’, *nō* ‘never’ and compounds, alongside *ā*, *nā*.[1] Some degree of rounding in all cases would also explain such forms, but that remains unproven, despite the rounding of /ɑː/ > /oː/ in S. dialects of ME, see Luick (1914–40: §369).[2] The change may be approximately characterized as:[3]

$$\begin{bmatrix} \text{V} \\ +\text{low} \end{bmatrix} \begin{bmatrix} \text{V} \\ -\text{syll} \\ -\text{back} \end{bmatrix} > \begin{bmatrix} +\text{long} \\ +\text{back} \end{bmatrix} \quad \emptyset$$

[1] Note Merc *ōēġhwelċ ‘every’, ōēġhuuer* ‘everyhwere’, with *i*-umlaut of /oː/ < */ai/.

[2] Other examples of ō for *ā*, such as CP 227.8 *sōriġ ‘sad’*, are scarcely significant.

[3] It is necessary to specify the long vowel as [+back] since it enters into contrast with /æː/, whereas at this point there is no similar contrast between short low vowels. The lengthening can, of course, be more elegantly stated within a non-linear framework which would make clear the intrinsic nature of the compensatory lengthening.

5.8 Typical examples of this change are: **aik > āc* ‘oak’, *bā* ‘both’, *brād* ‘broad’, *bān* ‘bone’, **hāljan* ‘heal’ (with later *i*-umlaut, see §5.79(1)). Early Lat borrowings with Lat *ae* show the same development, such as *Caesar* > *cāsere* ‘emperor’.[1] The change has few morphological effects, but is found most notably in the pret.sg. of strong class I verbs, such as *rād* ‘he rode’.

[1] *Crēcas* ‘Greeks’, cf. Goth *Krēkos*, may have either Gk *αι* or Lat *ae*. In either case the Gmc development is unclear. The OE diphthongal form *Crēacas* is best explained as the equation of WS ⟨ea⟩ with Angl ⟨e⟩ before velars, see Flasdieck (1929: 342). It is unlikely that *Crēcas* is a late loan from OHG, see Luick (1914–40: §216 and references).

5.9 The chronology of this change is clear, since it must be later than the Inguaeonic shift of Gmc */aː/ > /æː/, for otherwise */ai/ would also have developed to /æː/. On the other hand, the change must have been prior to the period of first fronting (§§5.10ff.), since otherwise by that change */ai/ > */æi/, which would surely have given /æː/.[1] The relative chronology of the OE sound changes is different from that of the corresponding OFris changes, since in OFris */ai/ normally develops to *ē* (= /æː/), except in environments where restoration of *a* would take place, and this suggests the sequence */ai/ > */æi/ > /æː/ (> /eː/).[2] For further details of chronology see Campbell (1959: §132).

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[1] That first fronting preceded monophthongization of */ai/ is suggested by Luick (1914–40: §§121–2), largely on the basis of the difficult form *wēan* 'woe' acc.sg., with nom.sg. *wēa* < **waiwum*, cf. the expected *wāwa, wāwan*. Other explanations are equally implausible, see Brunner (1965: §128A3).

[2] Not all OFris forms can be so explained, but this must be the basis of the explanation, see Campbell (1939: 95–7), Steller (1928: §18), Siebs (1891: §29).

(c) First fronting

5.10 The general Inguaeonic tendency for low vowels to be fronted except in special circumstances is continued in OE (and OFris) by the change known as first fronting (or Anglo-Frisian brightening), whereby Gmc */a/, with the exception of nasalized *[ã] discussed in §§5.3–6, is fronted to /æ/ in most positions. The view of most modern writers, such as Luick (1914–40: §164), Campbell (1959: §§131, 139n1), Brunner (1965: §50), is that the shift was unconditional (except under conditions of nasalization), and that /ɑ/[1] could later be restored in one of the following two ways. Firstly, before /w/ in all dialects, covered /l/ in Angl, and covered /r/ in Nbr, the following sequences of changes took place: (1) **clawe* > **clæwe* (first fronting) > *clawe* 'claw' acc.sg. (retraction rather than breaking); (2) Angl **ald* > **æld* (first fronting) > *ald* 'old' (retraction rather than breaking); (3) Nbr **arm* > **ærm* (first fronting) > **arm* 'poor' (retraction rather than breaking).[2] Secondly, after the period of breaking a sound change known as restoration of *a*, whereby */æ/ > /ɑ/ when a back vowel appeared in the following syllable, for full details see §§5.35–8, would cause */æ/ < */a/ to revert to /ɑ/. Thus we would find the following sequence of changes: **draɣan* > **dræɣan* (first fronting) > **dræɣan* (breaking inapplicable, see §5.16n1) > *dragan* (restoration of *a*) 'draw'. An older view, as expressed in, for example, Bülbring (1902: §§91, 127, 132–4), is that first fronting failed before /w/, covered /l/ in Angl, and covered /r/ in Nbr,[3] and also that it failed in the environments for restoration of *a*, which was not seen as a real sound change.

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[1] With the development of /æ/ and then restoration of *a*, there arose a phonemic contrast between the low vowels, best symbolized as /æ/ ~ /ɑ/.

[2] For details of breaking and retraction see §§5.16–31.

[3] So too, at least in part, Quirk and Wrenn (1957: §203).

5.11 The arguments in favour of the more modern view are as follows. Firstly, and most importantly, forms such as *ēa* 'river' < **aho* must have the following development: **aho* > **æho* > **eaho* > **ēao* > *ēa*, or, in

Angl, **aho* > **æho* > **eaho* > **æho* > *ǣo* > *ēa*. If first fronting had failed because of the following back vowel, then the form would have been ***ā*. The same arguments apply to verbs of the *slēan* type, see §5.38. Nbr and Ru1 forms such as *slā, slān* 'slay' are then to be explained analogically, and are thus not counter-examples to this view. Hence restoration of *a* is a genuine sound change and must have taken place after the period of breaking. Parallel arguments apply to cases of breaking before /rr/ and /ll/, as in *pearroc* 'enclosure', *ġealla* 'gall'. Forms of the type *clawe* are assigned a similar development on the grounds that first fronting was unconditional.

5.12 The arguments in favour of the older view of the interaction of first fronting and breaking/retraction are as follows. Most convincingly, it is claimed that a development of the type **clawe* > **clæwe* > *clawe* is both redundant and not demonstrable, and hence *clawe* should be assumed never to have had *æ*. Secondly, in those dialects which have *ald* rather than *eald*, it is equally redundant to posit a stage **æld*, although that stage will be needed in dialects with *eald*. Obviously, disregarding for the moment the question of restoration of *a*, the same will apply to forms of the type *galla* rather than *ġealla*. The same argument can be applied to cases of Nbr retraction before *r*-clusters, as in *barnum* 'children' dat.pl. For the interaction of restoration of *a* and first fronting, see below §§5.13, 38.

5.13 The position held here, and argued in more detail in §5.38, is that restoration of *a* was a genuine sound change and that in most, but not all, dialects it occurred after the period of breaking. On the other hand, there seems no justification for assuming an intervening stage **clæwe* in the development of *clawe*, nor for a similar stage in the development of *ald*. In the case of examples with following *r*-clusters, however, the variation of forms in Nbr (and the early Merc glossaries) demands the postulation of an intermediate stage with /æ/. It therefore seems likely that first fronting was prevented by a following /w/ or the velarized allophone of /l/, namely [ɫ], which occurred between back vowels or when covered by a following consonant, provided that the preceding vowel was not high or mid front, see §2.73.[1] It would appear that *r*, whatever its precise articulation, was not sufficiently back to prevent first fronting. It is particularly important to note that fronting occurred not only when */a/ was monophthongal but also when it was the first element of the diphthong */au/, which was later to develop to *ēa*, see §§5.41ff.[2,3] The new vowel created by first fronting is later subject to many developments according to environment and dialect: breaking, restoration of *a*, palatal diphthongization, *i*-umlaut, second fronting. The change may be approximately characterized as follows:

$$\begin{bmatrix} \text{V} \\ +\text{low} \\ +\text{nas} \end{bmatrix} > [-\text{back}] \; / \; \underline{\qquad\qquad} \left\{ \begin{matrix} [-\text{son}] \\ [-\text{cons}] \\ \begin{bmatrix} +\text{son} \\ +\text{cons} \\ -\text{back} \end{bmatrix} \end{matrix} \right\}$$

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[1] Given the contrast between *eald* and *ald*, it is clear that in dialects with the former type /l/ was insufficiently velarized to prevent first fronting. For more detailed discussion see §5.15.

[2] Since */au/ > */æu/ regularly develops to /æːɑ/ (⟨ēa⟩), see §5.41, I shall henceforth use the spelling *ēa* except where the distinction between it and */æu/ is crucial. But it should be remembered that *ēa* is not the product of first fronting. The same convention will apply to the eventual equivalent short diphthong.

[3] Of course *u* in */au/ is a non-syllabic form of /u/, and does not equal /w/.

5.14 Examples of first fronting are too numerous to quote extensively, but the following are typical: **craft* > *cræft* 'skill', **sæh* (> *seah* by breaking) 'he saw', **cræbba* (> *crabba* by restoration of *a*) 'crab', **sċæl* (> *sċeal* by palatal diphthongization) 'he shall', **nærjan* (> *nerian* by *i*-umlaut) 'save'. Alongside *clawe* with failure of first fronting before /w/ there are similar examples such as *awel* 'hook', *ġesawen* 'seen', *þrawe* 'punishment' acc.sg.[1] For examples before [ɫ] see §5.15 and for the effects of second fronting see §§5.87–92. Typical examples of the change as it applies to Gmc **au* are: *deað* 'death', **hǣurjan* (> *hȳran* by *i*-umlaut and other changes) 'hear'. Early Lat loans with *a* or *au* show the same development as native forms, hence *ċeaster* 'city' < **ċæster* < *castra, ċēas* 'strife' < *causa*.[2] Late Lat loans regularly preserve *a*, as in *castel* 'village'.[3] Similarly *au* is preserved in late loans such as *clauster* 'cloister' < *claustrum*.[4] Morphologically this change shows few important features, but **a* > *æ* can be seen in the pret.sg. of strong class IV and V verbs, such as *stæl* 'he stole', *sæt* 'he sat'. First fronting of **au* develops as *ēa* in the pret.sg. of strong class II verbs, such as *bēad* 'he commanded', *ċēas* 'he chose'. There are no significant dialectal variations for this change except before [ɫ], see §5.15.

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[1] However, if /i/ or /j/ directly follows, first fronting proceeds even before /w/, as in *ewe* 'ewe' < **æwi* < *ami, strewede* 'he strewed'. /e/ here is the result of *i*-umlaut.

[2] The development of **au* > *ū*, seen in *clūster* 'bolt' < *claustrum, clūse* 'enclosure' < *clausa*, and the umlauted form -*clȳsan*, is Lat, not OE.

[3] Hence we find alternative forms, one, early, with the normal development to < *æ*, the other, later, with retention of Lat *a*, for example, *earc, arc* 'ark', *ċearċern, carcern* 'prison'. In a number of cases the situation is ambiguous, for example, *sealm, salm* 'psalm', where the latter may be due to the development outlined in §5.15, and in other cases we may simply be dealing with retention of the Lat orthographic form. Other examples show reborrowing much more clearly, for example, *lactuce* 'lettuce' against earlier *leahtriċ*. For discussion see especially Campbell (1959: §§495–6, 545).

[4] But there is a different development when *au* is here followed by a word-final liquid. In such cases the following liquid is syllabified and (presumably) velarized, and *u* is then lost, for example, Lat *caulis* > *cāl* 'cabbage'. Alternatively *u* may be retained under the influence of inflected forms, for example, *caules*, giving *cāul*. Later forms show retention of the diphthong with syllabic *l*, *r* represented by ⟨-el, -er⟩, thus *cāwel* and *lāwer* 'laurel' < *laurus, Pāwel* < *Paulus*. For further discussion and references see Luick (1914–40: §§216 and A1).

5.15 The only significant dialectal variations concerned with first fronting occur when **a* is followed by covered and velarized [ɫ]. In these circumstances first fronting to *æ* with later breaking to *ea*, thus giving *eald* 'old' < **ald*, etc., occurs in some dialects, but in other dialects, as discussed in §§5.10–13, first fronting fails because of the velar quality of the following consonant. It must be assumed that, in those dialects where first fronting occurs, to be followed by breaking, the /l/ is insufficiently velarized to prevent fronting, whereas in the other dialects the degree of velarization is greater.[1] The position in the different dialects is as follows. In EWS there is considerable variation. The greatest degree of retention of *a* is seen in Hand A of Chron(A), where ⟨a⟩ occurs 94×, ⟨ea⟩ 16×, excluding personal and place-names, whereas in CP ⟨ea⟩ spellings predominate and in Oros ⟨a⟩ are even fewer.[2] In LWS ⟨ea⟩ spellings are normal, and ⟨a⟩ spellings are extremely rare.[3] In Kt texts before 800 there is only one example of an ⟨ea⟩ spelling, namely Ch 31 (*c*.767) † *Uuealhhūnes*, which is scarcely trustworthy,[4] but by the time of the tenth-century Glosses ⟨ea⟩ greatly predominates, for example, OccGl 49.160 *onwaldum* 'power' dat.pl., but see n2, and 338 *sald* 'given', alongside 692 *sealde*, 1039 *seald*, various forms of *eall* 'all', 287 *wealle* 'wall'. In the circumstances the ⟨a⟩ spellings cannot be said to provide convincing evidence of the persistence of an *a*-dialect. In Angl dialects, on the other hand, ⟨a⟩ spellings are practically universal, the only exceptions being the frequent use of ⟨ea⟩ in Ru1, especially in *eall*, the Merc Ch 89 *Ealduuft* and EpGl 713 *fealga* 'harrows'. The forms in Ru1 are almost certainly due to WS scribal influence and neither of the other two forms can be regarded as fully trustworthy.[5] From this distribution we may conclude that in the North and Midlands there was a single *a*-dialect whereas in the South there were originally two sub-dialects, an *a*-dialect and an *ea*-dialect. Gradually, however, the *ea*-dialect encroached on the *a*-dialect, although the geography of the change remains obscure. Typical examples of failure of first fronting before covered [ɫ] are: *all* 'all', *ald* 'old' and the preterites of the class 1 verbs *sellan* 'give', *tellan* 'tell', etc., that is, *salde*, *talde*. In dialects where first fronting proceeds to be followed by breaking, we find *eall*, *eald*, *sealde*, *tealde*. It follows from what was said in §5.13 that in those dialects where covered /l/ inhibits first fronting, it would be reasonable to suppose that /l/ between back vowels would also inhibit first fronting. Therefore Ps(A) 79.10 *-wala* 'root', 57.6 *galend* 'enchanter', CorpGl 310 *falud* ‘fold’,[6] Ep, ErfGl 1462 *scalue*, CorpGl 976 *scala* ‘scale’ and similar forms in Nbr are due to failure of first fronting rather than restoration of *a*.[7]

[1] It might be claimed that this account makes first fronting unnecessarily complicated, but since the argument above, if it were not applied to first fronting, would have to be applied to breaking before /l/ in exactly the same form, as in Girvan (1931: §62A1), such a claim carries no weight.

[2] Even in those EWS texts where ⟨ea⟩ spellings predominate *onweald* ‘power’ tends to have the stereotyped spelling *onwald*, cf. here the Kt form cited below. For a full discussion of this rivalry between two dialect types and the special status of the sequence *-wald-*, see Stanley (1969), Lutz (1984), Hogg (1988).

[3] In ÆHom there appears to be only one form with an ⟨a⟩ spelling, ÆHom 23.115 *all*. But this is most probably due to weak stress. Two apparent examples in ÆGl *dalc* ‘clasp’, *fald* ‘fold’ are from earlier **daluc*, **falud*, see also n6.

[4] Also worthy of note is the late seventh-century Kt form Ch 8 † *AEldredi*. But it is doubtful whether this genuinely indicates that even in *a*-dialects there was an intermediate stage *æ*, as claimed by Toon (1983: 130), both because of the uncertain status of the text and because there is good reason to suppose two rival dialects in the Kt of the time.

[5] Note that *fealga* lacks Angl smoothing.

[6] Alongside CorpGl 1920 *falaed*, also in Ep, ErfGl, which shows interchange of the unstressed vowel, see §6.64.

[7] Luick (1914–40: §146) restricts such failure of first fronting to Merc, but there seems no logical reason for supposing that it might happen in that dialect but not in the other *a*-dialect areas. A similar failure in Nbr helps to explain the interesting observation of Ball (1962: 143) that in Nbr, although restored *a* is frequently levelled out by analogy, the opposite occurs before *l*, where there is extension of *a*. Examples include: DurRitGl *stale* ‘theft’, *tal, tales* ‘tale’, Ru2 *tale*, Li *tal*, etc., *huales* ‘whale’.

II Breaking

5.16 Very early in the prehistoric OE period the front vowels *ǣ̆*, *ē̆* and *ī̆* were diphthongized when immediately followed by a velar or velarized consonant or consonant group. The consonant and consonant groups before which diphthongization occurred are: (1) the voiceless velar fricative /x/, usually spelled ⟨h⟩, see §2.60;[1] (2) the velarized liquid [ɫ] when covered by a following consonant, including itself;[2] (3) the liquid /r/ when it was similarly covered, which was either velarized or had an articulation similar in effect to velarization, see §2.74 and Lass (1977); (4) the labiovelar approximant /w/.[3] Between the front vowels and these consonants there developed a transitional glide which in the first instance would be a non low, nonsyllabic back vowel, that is, /u/ or /o/. At a later stage, certainly by the time of the earliest written texts, this glide developed into a nonsyllabic back vowel of the same height as the preceding front vowel, see §§5.41–6 for details, and hence the diphthongization may be summed up as **ǣ̆* > *ē̆a*,[4] **ē̆* > *ē̆o*, *_ī̆_ > _ī̆o_.[5] The traditional name given to this development, a calque from Grimm (1822), is breaking or, following Mayhew (1891), fracture.[6] Where the vowel which is broken (see n6) is long, the resultant diphthong is identical with the diphthongs which developed into OE from Gmc, but where the broken vowel is short, the resultant diphthong is equivalent in length to a short vowel, and hence the new contrast in OE between long and short diphthongs first arises at the time of breaking, see §§2.19–29 for discussion. The diphthongs which arise from breaking are subject to such later developments as _i_-umlaut and, where applicable, Anglian smoothing, as well as the general changes affecting all OE diphthongs variously. This sound change displays many similarities to the later _u-/a_-umlaut, see §5.103 for discussion.

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[1] It is especially important to note that diphthongization did not occur before the voiced velar fricative /ɣ/, for example, _wegas_ 'ways', not **_weogas_, _dragan_ 'drag', not **_dreagan_, see also §5.10. The explanation for this remains uncertain, see Hogg (1979b: 91–6). Note further that although many writers distinguish between diphthongization before /x/ and diphthongization before /xC/, where C may equal /x/, this is a distinction without a difference.

[2] Diphthongization thus occurs before /ll/, as in WS _eall_ 'all', but with the exception of /ll/ due to gemination in WGmc, where the palatalizing effect of following /j/ gave [ll] rather than [ɫɫ]. Thus we find _hell_ 'hell', _sellan_ 'give' < *_halj-_, *_saljan_, and many other similar forms. Note that in the Angl dialects where first fronting failed before [ɫ], there is the parallel contrast of _all_ v. _hell_, _sellan_, see §5.15. Since /rr/ is never due to WGmc gemination, diphthongization occurs freely before that cluster. On the other hand, diphthongization will not occur before ungeminated /rj/, since /j/ has the same palatalizing effect on /r/ as it does on [llj] < *[ɫj]. Examples are *_nærjan_ 'save', * _hærjas_ 'armies'. But diphthongization always occurs before /xx/, even when /xx/ is the result of WGmc gemination, as in _hlihhan_ 'laugh' < *_hleahhjan_. For the status of breaking before /w/ followed by /i/ or /j/, see §§5.20, 5.24.

[3] Some writers suggest /u/ rather than /w/ here, but this can hardly be correct.

[4] ⟨ea⟩ is, of course, the regular spelling for /æɑ/, /ǣ̆ɑ/, see §2.34 and §5.13n2.

[5] In a few early texts unbroken forms are recorded. Almost all cases are of proper nouns, but note the following: (1) for _eo_: EpGl 15 _herth_ 'hearth', CorpGl 2108 _huerb_ 'whorl'; (2) for _ea_: EpGl 25 _īsærn_ glossing _alchior_, where there may be confusion with _īsern_ 'iron', EpGl 592 _bærs_ 'perch', where /r/ is unmetathesized, see §5.26. For the last two examples see Pheifer (1974: §43.1). Other examples occur quite commonly in mss. written in a foreign hand, such as ErfGl, LdGl. _Hærfest_ 'harvest' is to be explained under _i_-umlaut, see §5.76, and WS _Ælfred_ is probably due to borrowing from Angl, but could also be from the type of WS which has failure of first fronting before _l_-groups, see §5.15.

[6] For criticism of the term 'breaking' (and associated terms such as 'broken') see Quirk and Wrenn (1957: §201). Despite the justness of their criticisms, the terminology is so well established that it would be futile to attempt to avoid it.

5.17 Although the individual details of breaking are remarkably homogeneous over the OE dialects (with the exception of the related forms discussed in §5.15), there is considerable variation according to phonological environment. An adequate rule of thumb, however, is that the likelihood of breaking decreases in relation to increasing height and length of front vowel. In the following discussion the vowels are treated in an order which has the most frequently broken vowel first, the least frequently broken vowel last.

5.18 In a number of cases a short front vowel is not broken but is, rather, retracted to the equivalent back vowel, that is, **æ* > *a,* **e* > *o*, **i* > *u*. Such retraction takes place only where there is some additional phonological environment, normally a labial consonant (most frequently /w/) preceding or following the consonant which is the immediate cause of breaking. It is, perhaps, preferable therefore to call this process combinative breaking, which may be viewed as the implementation of a *w*- or [labial]-prosody. Details and examples of combinative breaking are discussed in §§5.28–31.

(a) 'Simple' breaking

5.19 Notwithstanding the various differences discussed below, the following formulation of breaking is a useful starting-point for reference, to be modified in the light of further discussion:

$$\emptyset > \begin{bmatrix} \text{V} \\ +\text{back} \\ -\text{syll} \\ +\text{high} \end{bmatrix} \; / \; \begin{bmatrix} \text{V} \\ -\text{back} \end{bmatrix} \underline{\hspace{4em}} \begin{bmatrix} \left\langle \begin{bmatrix} +\text{obst} \\ -\text{voic} \end{bmatrix} \right\rangle_{a} \\ \left\langle \begin{bmatrix} -\text{obst} \\ +\text{cons} \end{bmatrix} \right\rangle_{b} \\ +\text{back} \\ +\text{cont} \end{bmatrix} \langle[+\text{cons}]\rangle_{b}$$

Condition: Either $\langle\ \rangle_a$ or $\langle\ \rangle_b$.

5.20 As stated in §5.17, /æ/ is the vowel most frequently broken, and indeed combinative breaking is also more frequent with this vowel, see §5.29. The diphthongization of /æ/ is to /æ̆u/, later /æ̆ɑ/, normally spelled ⟨ea⟩.[1] Before /x/ diphthongization is regular in all dialects, although in Anglian there is later monophthongization, see §§5.93, 98. Typical examples are: *seah* 'he saw', *ġeneahhe* 'abundantly', *eahta* 'eight'.[2,3] Examples of diphthongization before medial /x/ which is later lost, see §§7.45, 51, include *ēar* 'ear of corn', cf. LiGl *eher*, Ru1 *æhher, slēan* 'slay'.[4] As discussed in §§5.10–15, the occurrence of /æ/ before *l*-groups is dialectally restricted, and the details of its distribution are given in §5.15. In LWS and Kt, the dialects where /æ/ was most common originally, typical examples of the diphthongization are: *eall* 'all', *healf* 'half'. Similar forms predominate in EWS alongside *a*-forms, see again §5.15 for further details. Diphthongization before *r*-groups is regular in all dialects, although in Nbr especially combinative breaking is frequent in a labial environment, see §5.29.[5] Examples of diphthongization are: *dearr* 'he dares', *heard* 'hard', /æ/ occurs before /w/ only in the sequence /æwi/, and in that sequence breaking fails, see §5.14n1 for examples.

[1] Examples of ⟨eo⟩ and ⟨æu⟩ spellings found in early texts are given in §2.34; note also the occasional alternative ⟨æa⟩. Examples of spellings with unbroken *æ* are given in §5.16n5.

[2] For all vowels the following order of discussion is used: (1) before /x/; (2) before covered /l/; (3) before covered /r/; (4) before /w/. Where appropriate the order of examples within each subdivision is: (1) before C; (2) before C_1C_1; (3) before C_1C_2.

[3] Alongside normal *meaht* 'might' or, with Angl smoothing, *mæht* we find Ps(A) *maht*, OccGl 54 *almahtiġ*, both Merc, and Kt Ch 1508 *almahtiġ*. It is possible, but not certain, that these forms indicate the occurrence of combinative breaking outside its normal limits, see §5.31.

[4] For Nbr *slā(n)*, etc., see §5.38.

[5] The only instances where *a*-spellings are found outside the normal limits of combinative breaking are: LVD † *Arduini*, LiGl (2×), DurRitGl 8.62 *arg* 'cowardly', LiProlMt 8.62 † *darr* 'he dares'. *Art, þarf* are low stress forms, as, most probably, is Cæd(L) -*ġard* against Cæd(M) -*ġeard*. For Nbr *arn* 'he ran' see §5.4 and for Nbr *darste* 'dared' see §5.34. Note also CP *ġearnunga* 'merits' (2×), occasionally also elsewhere, which is probably a scribal error.

5.21 Where it occurs long /æː/ is broken to /æu/, by the time of the earliest texts /æɑ/, normally spelled ⟨ēa⟩.[1] The only instances can be of WS *ǣ*$_1$, and these parallel the examples under §5.23 for nWS *ē*. Typical WS examples include: *nēah* 'near', *nēalǣċan* 'approach', *nēawest* 'nearest', *nēar* 'nearer'. Unlike /æ/ it must be assumed that /æː/ regularly occurred before /w/, for otherwise the nWS development to /eː/ cannot be satisfactorily explained, see §3.22n1. In such an environment there is, however, no diphthongization but rather retraction to /ɑː/, for example, WS *sāwon* 'they saw'.[2] Rather more difficult to explain are the strong class VII verbs such as *blāwan* 'blow', *cnāwan* 'know', *sāwan* 'sow', where /ɑː/ is found in all dialects. For discussion and references see Brunner (1965: §63A2).

[1] For the long diphthongs from breaking there do not appear to be any examples of the types of spelling referred to in §5.20n1.

[2] In *tā̆wian* 'prepare' and *ġetā̆we* 'armour' the length of the vowel is uncertain, see §2.91n4 and reference.

5.22 The short vowel /e/ is regularly broken to /eŭ/, by the time of the earliest texts /eŏ/, with the spelling ⟨eo⟩,[1] before /x/. Typical examples are *feoh* 'cattle', *feohtan* 'fight'. The lack of examples before /xx/ is accidental, cf. *tiohhian*, §5.24. A typical example of diphthongization before medial /x/ which is later lost is the contracted strong verb of class VI *sēon* 'see'

< **seuhan* < **sexan*, see §5.32. Diphthongization is, however, more restricted before *l*-groups, see §5.24, where /l/ was sufficiently velarized to cause breaking only in the groups /lx, lw/, containing a following velar, examples being: *eolh* ‘elk’, *ġeolwe* ‘yellow’,[2] *meolwes* ‘meal’ gen.sg.[3] The single exception to this is in the group /selC/, where breaking appears to occur if the following consonant is /f/.[4] Only two words show the change: nWS *seolf* against EWS *self*, LWS *sylf* ‘self’,[5] and Gen 2167 *asealcan*, CP 275.20 *aseolċe* ‘languish’, and since *asealcan* is a nWS form there must be some doubt as to the degree of penetration into WS of this change. Before *r*-groups the diphthongization is fully implemented, for example, *steorra* ‘star’, *eorl* ‘warrior’.[6] Before /w/ diphthongization is equally regular, typical examples being: *hweowol* ‘wheel’, *cneowe* ‘knee’ dat.sg.[7] For the development of breaking diphthongs under *i*-umlaut see §§5.82–4.

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[1] The early spelling ⟨eu⟩ is found only in the proper name Bede(M) † *Ēumer*, with loss of *h* and compensatory lengthening, see §2.33.

[2] Note LRid 10 *ġoelu* for *ġeolu* and see further n3 and §5.105n2.

[3] *Pace* Luick (1914–40: §137A1), who, followed by most other authorities, denies breaking of /e/ before /lw/. In that case the diphthongs of the two examples must be due, as Luick says, to analogical transfer from the nom.sg. forms *ġeolu, meolu*, where *u*-umlaut would occur, see §§5.103, 111(1). This might explain the apparent rivalry of *meolu, meolwes* and *melu, melwes*, since the undiphthongized forms would be due to failure of breaking before /lw/ or the analogical extension of these forms. But note that there are no examples of undiphthongized forms of *ġeolu* except in the nom.sg. in the Merc glosses, where *ġelu*, etc. may be due to early date and conservative spelling, see Pheifer (1974: §56), Ball and Stiles (1983), and the contrast with *meolu* is unexplained. It is also the case that the same rivalry is seen in *smeoru* ‘fat’, where, for example *smeru* is the slightly more frequent form in Lch, and the absence of a diphthong in this word cannot be due to inflected forms, since there is no reason to suppose that breaking failed before /rw/. It would appear more probable that the explanation is that *u*-umlaut sporadically failed in the nom.sg., see §5.111(1), and, for further discussion, Ball and Stiles (1983). It may also be added that it is more plausible phonetically to suppose that breaking occurred before /lw/ than to suppose it did not.

[4] *Leolc*, pret. of *lācan* ‘play’, is most probably due to *u*-umlaut.

[5] See §5.171n2 for discussion of the development of these forms in LWS.

[6] EpGl, ErfGl 944 *smeruui* ‘fat’ dat.sg. may be due to the analogy of *smeru* without *u*-umlaut, see n3 above and also Chadwick (1899: 127). Note also EpGl, ErfGl *teru* ‘tar’.

[7] But in *cnēo(w)*, where *w* is due to analogical extension, the diphthong is due to the Gmc development of **knewaz* > **kneu* > *cnēo*.

5.23 The long vowel /eː/ is broken to /eu/, by the time of the earliest texts /eo/, with the spelling ⟨ēo⟩. By chance there are no examples of diphthongization of /eː/ < Gmc **ē*$_2$,[1] and hence the only examples are of nWS *ē* = WS *ǣ*$_1$. Further, the only examples of breaking of nWS *ē* occur before /x/, and in Angl the resultant diphthong is monophthongized by Angl smoothing unless /x/ is firstly lost, see §§5.93, 102. Angl examples are

Ps(A) *nēolǣċan* ‘approach’, *nēowest* ‘nearest’. The only possible Kt examples, where there is no monophthongization, are: CollGl 12 *nīor*, Ch 1200 *nēor* ‘nearer’.[2]

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[1] The *-ēo-* preterites of strong class VII verbs with *-lC*, such as *fēoll* ‘he fell’, can scarcely be due to breaking, given the known restrictions on breaking of *e* before *l*-groups, see §5.22.

[2] Angl *nēst* ‘next’, *nēsta* ‘neighbour’ possibly show failure of breaking before /x/ when /i/ stands in the next syllable, if they are parallel examples to the Surrey Ch 1508 *nēst*, where failure of breaking is the most probable explanation. See, however, §5.100 and n1.

5.24 The short vowel /i/ is regularly broken to /ı͝u/, later /ı͝o/ with further development to /e͝o/ in many dialects, see §§5.155–62, and is normally spelled ⟨io, eo⟩.[1] Typical examples with diphthongization before /x/ are: *meox* ‘manure’, *tiohhian* ‘consider’, *Peohtas* ‘Picts’. All such examples are relatively infrequent, and the only examples of breaking before /xC/ are from proper names; thus in addition to *Peohtas* we have *Wioht* ‘Isle of Wight’. Since /i/ is often followed by /i/ or /j/ in the next syllable, most forms are found with *i*-umlaut of the breaking diphthong, for example, **sihiþ* > **siuhiþ* > WS *sihþ*, Kt *siohþ*, Angl *sīþ* (with Angl smoothing, see §5.94, and loss of *h* with compensatory lengthening, see §5.124) ‘he sees’. Breaking of /i/ before [ɫ] is found only in **filhiþ* > **fiulhiþ* (> WS *filhþ* by *i*-umlaut, Angl *fīleþ* by Angl smoothing). Otherwise there are no examples, cf. the position with /e/ in §5.22. In WS and Kt /i/ is regularly diphthongized to /ı͝u/ before covered /r/. All relevant forms have following /i, j/ and the diphthong is subject to *i*-umlaut. Typical LWS examples are *yrre* ‘anger’ (< **iurri*), *afyrran* ‘remove’, *birhto* ‘brightness’. In Kt *io* remains under *i*-umlaut but then merges with *eo*, see §5.160. Note, however, CollGl 49.646 *iorsienne* ‘become angry’, 526 *stiorċe* ‘calf’ dat.sg. In Angl dialects breaking of /i/ failed before *r*-clusters if /i, j/ stood in the next syllable, hence various forms of *afirran* ‘remove’, *smirwan* ‘smear’, *hirtan* ‘encourage’, CorpGl 740 *ġesuirbet* ‘polishes’, *ċirm* ‘noise’, ?† *ċirn* ‘churn’,[2] *ċirnel* ‘kernel’, *first* ‘roof’. In a number of cases it is theoretically possible that breaking might have first occurred to be later removed by Angl smoothing, for example, Ps(A) *birhtu* ‘brightness’, EpGl, ErfGl 792 *birċiae*, CorpGl 1609 *birċe* ‘birch’, but it is simpler to assume that breaking failed here as in other cases. Against these forms we find a number of examples where breaking has apparently occurred, notably Angl *iorre, eorre* ‘anger’ and the proper name element LVD, KSB 12 † *Iurmin-, Iurmen*.[3] Neither form is easily explained.[4,5,6] For discussion of breaking before metathesized *r* (half-breaking), see §5.26. /i/ before /w/ is regularly diphthongized in all dialects, except where /i, j/ follows in the next syllable and prevents the change,[7] hence *niowul* ‘prostrate’ against *niwel*, cf. *niwol, aseowen* ‘sifted’ against *ġesiwed* ‘sewn’.

[1] For examples of the early spelling ⟨iu⟩ see below.

[2] *Ċirm* may be an error for *ċirn*, but see Wakelin (1977).

[3] Compare Bede † *Irmin* and the Kt Ch 8 *Irmin*, texts where breaking diphthongs are often omitted.

[4] But it is noteworthy that these are the only examples where /i/ is initial, which might offer a possible explanation.

[5] There are some other forms where ⟨io⟩ appears, namely *hiorde* 'herdsman' *leornian*, *liornan* 'learn'. In these cases we are presumably dealing with breaking of analogical /e/. For their subsequent development see §5.84.

[6] There is a divergent development to ⟨ie⟩ in EpGl 595 *fierst* 'roof', 933 *orfiermae* 'squalid', 990 (also ErfGl) *ġeoruuierdid* 'disgraced', and a further variation occurs in EpGl, ErfGl 762, CorpGl 1599 *sifunsterri* 'Pleiades', MtGl(Ru) 26.12 *smerenisse* 'ointment', and, unless this is a scribal error, ErfGl 933 *orfermae*. The ⟨e⟩ spellings are most probably indicative of lowering rather than diphthongization, and it may be that the ⟨ie⟩ spellings have the same intention, see §5.164. On the other hand, it is possible that ⟨ie⟩ is intended to indicate the *i*-umlaut of *io*. In either case these spellings would suggest an underlying WS or WS-related source for the early Merc glossaries, see Wynn (1956: 362–3).

[7] Luick (1914–40: §143), following Bülbring (1900a: 85), suggests that /w/ before /i, j/ had the quality [ɥ], so preventing breaking.

5.25 Diphthongization of /iː/ to /iu/, later /io/, etc., regularly spelled ⟨īo, ēo⟩, is considerably more limited than that of /i/, being found only before /x/. Typical examples are: *betwēoh* (*betwīoh*) 'between', *lēoht* 'light'. Cases of diphthongization before medial /x/ which is later lost, see §§7.45, 51, include *betwēonum* 'between' and the contracted verbs of strong class I such as *tēon* 'accuse' < **tīohan* < **tīxan*, see §5.32. In Angl, where smoothing occurs, the relevant forms regularly have *ī*, for example, *betwīh*.

5.26 Due to metathesis, for which see §7.94, an *r*-cluster can arise which is apparently identical to that which causes breaking, and before such a cluster a change takes place which is closely related to breaking. The change is, however, too late for the normal processes of breaking, and instead we find a shift which we may term half-breaking. Under half-breaking the only vowel which is affected is /i/,[1] and it comes to be represented in EWS by ⟨ie, i, y⟩, in LWS by ⟨y⟩, and in Angl by ⟨io, eo⟩ or their variants.[2] We may suppose that the development in WS implies an identity with the other sequences represented by ⟨ie⟩, etc., see §§5.163–4. Therefore half-breaking could in WS be interpreted as either diphthongization or lowering, whilst it is reasonable to assume simple diphthongization in Angl. But the differences may be chronological, see Luick (1914–40: §§262, 136A1).[3] Typical examples are: EWS *biernan* 'burn', *iernan* 'run', *fierst* 'period', alongside less frequent *birnan*, *byrnan*, *irnan*, *first*, *fyrst*; LWS *byrnan*, *yrnan*, *fyrst*; Merc *beornan*, *eornan*; Nbr *biorna*, *iorna*.[4]

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[1] /iː/ cannot occur under these circumstances, since metathesis only occurs with short vowels. It is clear that nonhigh vowels are not subject to half-breaking and that the normal situation is retention of /e, æ/, as in: *berstan* 'burst', *fersċ* 'fresh', *bærst* 'he

burst', *gærs* 'grass'. For *bærs* 'perch', see §5.16n5. Examples such as LWS *bearn* 'he burned', *earn* 'he ran', are due to the analogy of *wearþ*, etc.

[2] The position in Kt is unclear.

[3] There seems no reason, however, to accept Luick's postulation of sporadically early metathesis to explain EWS *biernan*, etc. See also Chadwick (1899: 125).

[4] Possible additional forms are to be in EWS *bierþ* 'he bears', etc., where the *r*-cluster is due to syncope, but these may equally be cases of ⟨ie⟩ for ⟨i⟩.

5.27 The most significant feature of breaking with regard to early Latin loans is that the breaking of Lat *e* is to /æ̆ɑ/, which probably signifies that Lat *e* was a lower vowel than the corresponding OE sound. Thus we find *earfe* 'tare' < Lat *ervum*. The breaking of Lat *a* > OE *æ* is not to be distinguished from breaking of *æ* < Gmc **a* discussed above. Hence we find: *sealm* 'psalm', see §5.14n3, *earc* 'ark', *leahtriċ* 'lettuce'. In ILat Lat loans *a* remains and thus is not subject to breaking, giving rise to doublets such as *earc*, *arc* and *ċearċern*, *carcern* 'prison'. In the case of *ærċe-* 'arch-', borrowing presumably took place between the time of breaking and the time of *i*-umlaut, for this will explain the presence of unbroken *æ* (and also of *ċ*). The same explanation could possibly hold for the more difficult *ælmesse* 'alms' < Lat **alimōsina*.

(b) Combinative breaking

5.28 In certain environments and in certain dialects the combination of a following *r*-cluster and a preceding or following labial consonant, most commonly preceding /w/, causes retraction rather than diphthongization.[1] The change is only demonstrated with short vowels, where we find /æ/ > /ɑ/, /e/ > /o/, /i/ > /u/. The change exceeds the normal limits of breaking in that combinative breaking of /i/ in Angl takes place even if /i/ or /j/ stands in the following syllable, cf. §5.24 and see §5.31 for examples. On the other hand, if /r/ is followed by a back consonant there is no combinative breaking, for examples see below.[2] The details of combinative breaking of /æ, e, i/ are discussed in §§5.29–31.

[1] The only instance of combinative breaking before a consonant other than /r/ is WS *tuwa* 'twice' < **twuwa* < **twiwa*. Such a development is phonetically logical and the absence of other forms is accidental. *Twiwa* is due to the analogy of *twiga*, and it can then develop to *tweowa* by *a*-umlaut.

[2] The circumstances of this failure of combinative breaking are identical to those of Angl smoothing, and this led Bülbring (1902: §265) to suppose, somewhat implausibly, that at least in some cases combinative breaking was later than smoothing.

5.29 /æ/ is retracted to /ɑ/ in Nbr and the early Merc glossaries in the sequence /$C_i$ærC_j/ when either C_i or C_j is labial, thus in a more extensive phonological environment than that for the retraction of nonlow vowels, see §§5.30–1.[1] The sole examples in eNbr with only a preceding labial are CædH 1 *uard* ‘guardian’, RuneAuzon *warþ* ‘he became’; examples with only a following labial are: BDS 2 *tharf* ‘need’, Bede(M) 207 † *Iaruman*; examples with both a preceding and following labial are: LRid 5 *uarp* ‘warp’, Bede(M) 242 † *Baruæ* ‘grove’ dat.sg. (as place-name). In the principal texts of lNbr examples of retraction include: *arm* ‘arm’, *arm* ‘poor’, *barm* ‘bosom’, *farr* ‘bull’, *harm* ‘harm’, *þarf* ‘need’, *ġesparriġa* ‘bolt’. The preterites *warp, warþ* are especially frequent, where the retraction may have been promoted by the analogy with similar strong verbs such as *halp*, etc., see Luick (1947–40: §147). Examples in the early Merc glossaries are: ErfGl 108 *foe[s]tribarn* ‘foster-child’, 333, 737 *-uard* (= *warþ*), EpGl, ErfGl 897 *sparu(u)a* ‘calf of leg’, CorpGl 1795 *þuarm* ‘cutting tool’, 2140 *tharme* ‘entrails’ (alongside 870 *þearm*), 88 *sarwo* ‘artifice’ (cf. 545 *seorwum*), 426 *warr* ‘corn’.[2,3] Outside these texts examples are rare, although Ru1 has a few forms such as *warþ* ‘became’, *iarwian* ‘prepare’ and note also the Kt Ch 1200 *barna* ‘children’ gen.pl.[4] At all periods the change is incomplete and there are many forms with diphthongization rather than retraction. Thus in eNbr we find: Bede(I) *Bearuae*, LVD *Ġeorored*;[5] in lNbr many of the forms quoted above are also spelled ⟨ea⟩ (or ⟨eo⟩, see §5.44, and, for Merc, §5.45): LiGl *þearf*, DurRitGl *earm* ‘arm’, and several words have only diphthongs, such as *bearu* ‘grove’ cf. above, *ċearf* ‘he cut’, *hearpe* ‘harp’, *hwearf* ‘he turned’, *sċearp* ‘sharp’. Examples from the early Merc glossaries are: EpGl 737 *-uueard*, EpGl, ErfGl 435 *spearu(u)a* ‘sparrow’ (?), EpGl 108, CorpGl 131 *fostorbearn*.

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[1] For possible examples of combinative breaking outside its normal limits, see §5.20n3.

[2] For either *warr* or *wear(r)*.

[3] Forms before geminate *rr* are in Nbr almost certainly and in the Merc glossaries possibly due to early restoration of *a*, see §5.38. An example from LiGl is *ġesparrado* ‘I bolted’, cf. also *naru* ‘narrow’. In Merc we find CorpGl 1451 *bisparrade* ‘bolted’, LdGl 93 *uarras* ‘calluses’.

[4] *Arwe* ‘arrow’ has only retracted *a* in all dialects.

[5] Possibly also in Rune48 *bæurnæ*, see §2.34.

5.30 In Nbr, almost exclusively, /e/ is retracted to /o/ in the sequence /werC/ where is C is [-back].[1] Frequent examples from Li, Ru2, DurRitGl are: *sword* ‘sword’, *worþa* ‘become’, *worþia* ‘honour’, *worpa* ‘throw’, *worþ* ‘worth’. Ru2 has occasional forms without retraction, mostly in *weorþian* but also in *cwearne* ‘mill’ dat.sg. Outside Nbr we have only the untrustworthy ErfGl 911 *aquorna* ‘squirrel’ alongside EpGl *aqueorna*.[2] Nbr examples of the failure of the change where C is [+back] (and hence a smoothing environment occurs, see §5.93) include: *werc* ‘work’,[3] but cf. EpGl 556 *alġiuueorc* ‘fire-making’ (?), *dwerg* ‘dwarf’, *þwerh* ‘cross’. LWS forms with *wur-*, such as *swurd* ‘sword’, are due to a separate development, see §§5.183–7.

[1] DurRitGl *farr* ‘far’, Li *farra* ‘from afar’ are most probably errors for *fearr, fearra* with NNbr ⟨ea⟩ for ⟨eo⟩, see §5.44(2), and thus do not clearly indicate that preceding /f/ could also cause retraction > /ɑ/ as suggested by Bülbring (1902: §272), see, however, 5.31n4. Other cases supposedly showing such retraction are DurRitGl *ymbhwarfað* ‘they go round’, which is probably an error for *ymbhwærfað*, see Brunner (1965: §113A3), and Li *farma* ‘meal’, which is to be derived from **farm-*, see Luick (1914–40: §136A3).

[2] Note also LdGl 236 *acurna*, but this is best seen as due to scribal error.

[3] I can find no trace of EWS *worc* mentioned by Luick (1914–40: §266.2) and Campbell (1959: §321n2). If the form is a ghost form, then presumably LWS *worc* is to be treated under the later development to *wur-*, see §§5.183–7. Note, however, Bo *wyrc* and Beo 289, 1100 *worc*, although the two instances in Beo may be due to the influence of *worda*, *wordum* in the set phrase. EWS *worþiġ* ‘enclosure’, found once in CP(H) alongside CP(C) *weorþiġ*, may well represent an alternative original form with *o*, see Brunner (1965: §113A1).

5.31 In Angl and Kt in the sequence /wirC/ where C is [-back], /i/ is retracted to /u/. The only example without subsequent *i*-umlaut is EpGl, ErfGl 1047, CorpGl 2008 *sin(h)uurful* ‘round’.[1] When /i, j/ stands in the next syllable /u/ is umlauted to /y/ and in Angl ⟨y⟩ spellings are almost exceptionless, such as *wyrþ* ‘honour’, *wyrþe* ‘worthy’, *ymbhwyrft* ‘circuit’.[2,3] In Kt *e* < earlier *y* is found, for example, CollGl 49 *forhwerfede* ‘perverted’, *werðnes* ‘dignity’, see §5.194.[4] The LWS ⟨y⟩ spellings are ambiguous, as in *wyrs* ‘worse’, since they could derive from the *i*-umlaut of either /u/ by combinative breaking or /ıŏ/ by simple breaking. However, in EWS CP has a remarkable number of ⟨ie⟩ spellings, which suggests that diphthongization occurred rather than retraction, even though other EWS texts show much less frequent use of ⟨ie⟩.[5] Thus, except for the example cited in §5.28n1, combinative breaking is restricted to nWS. Examples in Angl of failure of combinative breaking in smoothing environments are: Ps(A) *wirċan* ‘work’, LorGl 2.21 *swīran* ‘neck’ acc.sg. < **swirhjō*.

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[1] Note also BlHom *sinhwyrfel* with *i*-umlaut due to the suffix *-il*.

[2] It is probable that in BDS 1 *uuiurthit* ‘he becomes’, ⟨-iu-⟩ is a replacement for ⟨-ui-⟩ in order to avoid the sequence ***uuuirthit*, as suggested by Smith (1933: §8c). ⟨ui⟩ is, of course, an alternative for ⟨y⟩, see §2.18. BDS 5 *uueorthae* ‘become’ pr.subj. unambiguously shows a diphthong, which is most probably due to analogy with verbs of the same class without initial /w/, such as *steorfan*, see Campbell (1959: §149n3). There is no need, however, to demand, as Campbell does, that the same analogy should extend to *uuiurthit*, since diphthongization fails before a following /i/ in Angl, see §5.24.

[3] But one exception is EpGl, ErfGl 990 *ġeoruuierdid* ‘disgraced’, against CorpGl 2042 *ġeorwyrde*, see §5.24n6 for similar forms.

[4] Ps 50, Bo *aferran* ‘remove’ may suggest that originally in Kt retraction occurred after labial consonants other than /w/, see also §5.30n1.

[5] Thus for *wyrs* and derivatives CP has 5 instances of ⟨i⟩, 16 of ⟨ie⟩ and 19 of ⟨y⟩. But in other EWS texts ⟨ie⟩ spellings are infrequent: Oros *wierþe*, Chron 716 *arwierþa*.

(c) Summary

5.32 Breaking has a number of morphological consequences, the principal of which are as follows.

(1) The present of strong class III verbs such as *steorfan* 'die' shows a breaking diphthong as opposed to the monophthongs shown by the other principal types, namely *helpan* 'help', *bindan* 'bind'. Similarly, in the preterite singular both the *steorfan* and the *helpan* types show breaking diphthongs,[1] as in *stearf*, *healp*, against the monophthong of *band*. The contrast is, of course, obscured by the influence of the following nasal in the *bindan* type, which caused a differential development in the Gmc period.

(2) A number of strong verbs of different classes originally showed /x/ medially after the root vowel in the present and finally in the preterite singular. This /x/ was lost during the prehistoric period, see §§7.45–51, but the effects of breaking are clear. A single example from each class having such forms is: I – *wrēon* 'cover'; II – *flēon* 'flee'; V – *sēon*, *seah* 'see'; *flēan* 'flay'. It is only in class V that breaking affects the preterite singular.

(3) Those weak class 1 verbs with root-final /l/ and a syncopated preterite, such as *syllan* 'give', show breaking in the preterite, for example, *sealde*. Of course in the *a*-dialects, see §5.15, we find *salde*, etc.

(4) In *wa*- and *wō*-stem nouns such as *bearu* 'grove', *searu* 'device', the diphthong in the nom.acc.sg. is analogically introduced from inflected forms where breaking regularly occurs before /rw/, see §5.22n3 for the situation with root vowel */e/.

Many recent morphological analyses of OE have assumed that breaking was synchronically relevant for historic OE, but this assumption has never been adequately proven, and it seems reasonable to suppose that breaking had at best a minor, peripheral role in the synchronic phonology of historic OE. Note especially that breaking is opaque in the sense that there are a number of forms in OE which at the level of surface phonetics meet the structural description for breaking, such as *ærn* 'house', *bærn* 'burn!'

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[1] Of course *healp* occurs only in *ea*-dialects. Elsewhere we find *halp*.

5.33 It is clear that breaking must be a later change than first fronting, since the product of first fronting undergoes breaking, as in **sah* > **sæh* > *seah* 'he saw'. Similarly, breaking must precede *i*-umlaut, since the diphthong due to breaking is subsequently umlauted, as in **heardjan* > EWS *hi(e)rdan*, LWS *hyrdan*, nWS *herdan* 'make hard'. More difficult is the relative chronology of breaking and restoration of *a*, for which see §5.38.

5.34 In the Angl dialects there is a change of *o* > *a* before covered *l* or *r* which, because of the environment in which it takes place, is often associated with breaking, although the relationship is unclear. Examples of the change are: CorpGl 567 *ġewarht*, RuneMortain 1 *ġewarahtæ* 'worked', Ps(A) *marġen*, *marne* 'morning', Li, Ru1 *sċ(e)alde* 'should', Ps(A), Ru1, Ru2, LiGl, DurRitGl, RuthCr *walde*, *nalde* and forms, LiGl, Ru2 *darste* 'dared', ErfGl 180 *dualma* 'confusion' (?).[1] The twelfth-century Merc LS 3 (Chad) shows that the change persists with *warhte*, *marġene*, *walde*. Outside the Angl area the change is rarely seen, but WSHGl and WSRGl, from the SE borders of Merc, both have *marġen*. Note also Oros 114.10 *warhte* and CP(C) 443.11 *walde*. Given the phonetic environment of the change, which, as can be seen from the above examples, mostly involves a preceding labial, it is more probable that the primary change is one of lowering rather than, as is usually asserted, unrounding, for that involves an unconvincing claim of dissimilation, as in Pheifer (1974: §62). A good discussion of this change and its spread is to be found in Vleeskruyer (1953: §22), and for other views see Brunner (1965: §59A1).

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[1] Possibly also in ErfGl 198 *suarnadun*, cf. EpGl *suornadun*, but the forms are obscure.

III Restoration of ā̆

(a) Restoration of ă

5.35 A further sound change which occurs early in the prehistoric period, see §5.38 for the precise chronology, is that by which */æ/ < */ɑ/ by first fronting reverts to /ɑ/ in open syllables when a back vowel stands in the next syllable.[1] The change also occurs, although in a more restricted manner, both when a geminate consonant intervenes and when the intervening consonant group is either /st/ or /sk/.[2] In parallel fashion the long vowel /æː/ is also retracted to /ɑː/, but for discussion of this much more limited change see §§5.39–40. Bearing in mind that the degree of implementation of the change is variable, the following approximate formulation may be useful (see, however, footnote 2 below):

$$\begin{bmatrix}\text{V}\\ \text{+low}\end{bmatrix} > [\text{+back}] \;/\; \underline{\qquad}\; \text{C}_1\ (\text{C}_1)\ \begin{bmatrix}\text{V}\\ \text{+back}\end{bmatrix}$$

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[1] As explained in 5.15, in the so-called *a*-dialects where there is failure of first fronting before [ɫ], forms such as *-wala*, *-falud*, etc. are to be explained by that failure rather than restoration of *a*.

[2] Apparently the change does not occur before /sp/, hence we find *æspan*, *æpsan* 'aspen' infl., *hæpsian* 'hasp', with or, less commonly, without metathesis. This exception

is phonologically odd, for it is reasonable to suppose that /st, sk/ are being treated as realizations of a single C slot, see §2.83(1), and /sp/ would normally be treated likewise. In the approximate formulation below it is silently assumed that /st, sk/ are indeed so treated. The same, of course, would not apply to /ft/, and the traditional view that restoration also occurs before /ft/ seems to be borne out only by AntGl 1249 *saftriende* 'rheumy' and Rune 4 *aft* 'after', in neither of which much reliance can be placed.

5.36 Restoration of *a* is extremely frequent in open syllables and the following examples show the change with each possible intervocalic consonant with the exception of /x/, for which see §5.38: *stapol* 'pillar', *gafol* 'tax', *latost* 'latest', *sadol* 'saddle', *baþian* 'wash' (< **baþōjan*), *bacan* 'bake', *gnagan* 'gnaw', *hasu* 'grey', *calan* 'be cold',[1] *faran* 'go'. Examples are lacking with /b/, see §2.53 and n1, cf. §5.39n2, and by §§5.3–6, 10 there could be no such change before nasals. Failures of the change or its extension beyond normal limits are to be explained on non-phonological grounds, see §5.37. Examples of the change with an intervocalic geminate are not frequent, and it should be noted that if such a geminate is due to WGmc gemination then there will be no restoration of *a* because of the immediately following /j/, for example, *seċġas* 'men' < **sæggjas*. Examples with invariant *a* are: *cassoc* 'rough grass', *hassuc* 'rough grass', *mattoc* 'mattock',[2] *crabba* 'crab', *racca* 'cord'. *Hnappian*, *hnæppian* 'fall asleep' are about equally frequent, whilst *læppa* 'skirt' is more frequent than *lappa*. Finally, *cæppe* 'cap', *tæppa* 'tap', *tæppian* 'tap', *tæppa* 'tape', *hættian* 'skin the head' apparently never show restoration of *a*.[3] The change is exemplified before /sk, st/ by *waxan* 'wash' (< **waskan* by metathesis, see §7.96), *ascan* 'ashes', *flascan*, *flaxan* 'flasks', *brastlian* 'crackle' (< **brastulōjan*).[4]

[1] But *calan* is an example of restoration of *a* only in the *ea*-dialects, see §5.15.

[2] EpGl 878, CorpGl 1709 *mettocas* may be due to variation of the unstressed vowel, cf. ErfGl *metticas*.

[3] It is doubtful that the apparent tendency for restoration of *a* to fail more frequently before /pp/ than any other geminate is any more than accidental.

[4] Examples before other consonant groups are extremely rare. WS *appla* 'apples' could be due to the influence of *apuldre* 'apple tree', and it is possible that Angl *accras*, etc. 'fields' is due to foreign influence. Note also the single example CP 293.4 *watrode* 'he watered', alongside frequent *wat(e)rian* and infl. forms.

5.37 Unsurprisingly this change has many morphophonemic implications, and the principal types of morphophonemic alternations, together with analogical reformations, are discussed below.

(1) In masculine and neuter *a*-nouns unrestored *æ* is found in the singular, restored *a* in the plural, as would be expected phonologically. Hence we find *dæġ* 'day', *fæt* 'vessel' against *dagas* 'days', *fatu* 'vessels'. When only a single consonant intervenes there is very little analogical extension;

examples such as Nbr *tal* ‘tale’ are to be explained under 5.15n7. Sporadic extension of both *a* and *æ* can, however, be observed. Examples are: Oros 15.16 *hwales* ‘whale’ gen.sg., 14.31 *hors(c)hwælum* ‘walrus’ dat.pl., ÆGram 25.1, Ex 487 *pað* ‘path’, And 533 *wædu* ‘waters’ nom.pl. When a geminate intervenes there is a strong tendency to extend *æ* throughout the paradigm, as in: *gnættas* ‘gnats’, *hættas* ‘hats’, *hnæppas* ‘cups’. Note, however, both *prattas* and *prættas* ‘bowls’, and in *sacc* ‘sack’ we may possibly have *a* extended to the singular, see n1 below, alongside less frequent *æ* (in both singular and plural). A few words show only *a*: *batt* ‘bat’, *bratt* ‘cloak’, *catt* ‘cat’, *facg* ‘flatfish’, *prass* ‘pomp’.[1] With intervocalic /ʃ/ or /sk/ *æ* is frequently extended to the plural, as in *æsca, æscum* ‘spears’, see (3) below.[2]

(2) In adjectives of the same declension, and the feminine forms of the same adjectives, there is considerable analogical reformation, so that *æ* is regular in closed syllables, *a* regular in open syllables. Hence we find *hwæt* ‘active’ masc.nom.sg. but *hwate* masc.nom.pl. But with most such adjectives *æ* may be extended to open syllables, and this is especially common with *hræd* ‘swift’, *stræc* ‘severe’, for example, *hrædum, stræcum*.

(3) In feminine nouns of the ō-declension, such as *faru* ‘journey’, *æ* would be phonologically expected in the sing. except nom.sg., and in the nom.acc.gen.pl. when the inflexion is *-e* or *-ena*. However, *a* is analogically extended from the nom.sg. to all forms with great regularity and hence we find *fare* acc.sg., etc. In early texts especially there is occasional preservation of *æ*, as in BDS 1, LRid 13 *-faerae*, CP 115.5 *wræċe* ‘pain’, Beo 154 *sæċe* ‘strife’. Extension of *æ* may be found in poetical *cearu* ‘care’, also found in EWS, but it may be that the form shows the adoption of *ċear-* from inflected forms such as *ċeare*. No fully satisfactory explanation has been given for the form, see Brunner (1965: §108A4).

(4) *N*-declension feminine (and, theoretically, since examples are lacking, neuter) nouns should have *æ* in the nom.sg., *a* elsewhere, but *a* is regularly extended to the nom.sg., hence *faþe* ‘aunt’. No doubt this extension was promoted by the frequent use of the inflexion *-u* from the ō-declension, for example, *faþu*.[3] The contrast between levelling of *æ* here and extension of *æ* in the masc. *a*-declension, well exemplified by *asċe* ~ *æscan* v. *æsċ* ~ *æscas*, is particularly noticeable.

(5) In strong class VI verbs of the *faran*-type, there should be variation between *a* and *æ* in the present tense and past participle according to the inflexion. In WS, however, *a* is generalized throughout the present and in the 2,3sg.pr.ind. it is later subject to *i*-umlaut. Hence we find *fare* ‘I go’, *færþ* ‘he goes’. In EWS there is some variation between *a* and *æ* in the past participle, such as *-faren, -færen*, but in LWS *a* is

general. In Angl, however, esp. Nbr, there is a strong tendency in the opposite direction, and *a* is often levelled away in the present and past part., esp. the pr.sg., for example, Li, Ru2 *færo* 'I go'.

It should be clear that in the synchronic morphophonology of historic OE the distribution of /æ/ and /ɑ/ has been subject to considerable analogical reformation and cannot be predicted merely on grounds of phonological environment. Hence minimal pairs such as *fære* 'journey' masc.dat.sg. and *fare* 'journey' fem.dat.sg. are not infrequent, cf. above. It would therefore seem necessary to postulate both /æ/ and /ɑ/ in the phonemic system.[4] But there may have been some synchronic reflex of the historical change, to deal with the alternation of vowel in *a*-declension nouns and the different alternations in adjectives. Clearly, however, the same rule could not apply to both categories.[5]

[1] Of these words it may be useful to note that *batt* and *bratt* appear to be OIr loans and that *facg* and *prass* are of unknown etymology. *Catt* and *sacc*, cf. above, may be from older **cattu, *saccu*, cf. Lat *cattus, saccus*, but for *catt* cf. also *catte* and §5.37.4 below.

[2] Examples of such analogy with intervening /st/ are lacking.

[3] Note ÆGl *spædu* 'spade'.

[4] For an alternative view see Colman (1983a), also Ross (1951) and n5 below.

[5] Cf. Ross (1951) for an account which attempts to dispense with much of the analogical explanation. Dresher (1980) claims that restoration of *a* was lost in Merc and that this is the origin of second fronting, see §§5.87ff., esp. §5.92n3. That analysis depends upon a theory of rule loss particular to generative phonology.

5.38 Although the chronology of restoration of *a* poses some difficulty, it is certain that the change was prior to the palatalization of velar consonants (§§7.15ff.), since velar consonants remain before restored *a* but are palatalized before *æ*, hence *calan* 'cool', *gān* 'go'. For S. (WS, Kt) dialects proof that restoration of *a* was a genuine sound change and that it occurred some time after the period of breaking is provided by *slēan* 'slay' and forms, where restoration of *a* took place before intervocalic /x/ which is later weakened to /h/ and then lost, see §§7.45–51. Since *slēan* is from Gmc **slaxan*, the only sequence of changes which will give the attested forms is the following, where there is no restoration of *a*: **slaxan* > **slæxan* > **slæaxan* > **slæahan* > **slǣa-an* > *slǣan* = ⟨slēan⟩. If restoration of *a* had been earlier than breaking (or not a genuine change at all but rather an orthographic reflection of a further restriction on first fronting), then the sequence of changes would have been: **slaxan* > **slæxan* > **slaxan* (restoration of *a*) > **slaxan* (failure of breaking) > **slahan* > **slā-an* > *slān*. Since forms such as *slān* are not found in WS, Kt[1] this demonstrates that restoration of *a* was in S. dialects a genuine sound change occurring after breaking. Further proof is provided by parallel examples with intervocalic /ll, rr/, although here the position is less certain because of the limited nature of restoration of *a* before geminates. But the presence in WS and Kt only of forms such as *pearruc* 'enclosure' < **parruk*- and *ġealla* 'gall' < **galla* confirms the chronology. In Nbr, on the other hand, the latter two types might have /ɑ/ under either chronology, as in Li *ġesparrado* 'I bolted', Ru2 *falla* 'fall', see §5.29 and n3. However, for WS *slēan* we find Nbr *slā*, etc., and this strongly suggests that in Nbr restoration of *a* was earlier than breaking.[2] Also in Nbr there are forms with /æː/, such as *slǣ*, and these can easily be explained as the analogical extension of /æː/ from forms without a following back vowel, for example, *slǣs* 'thou slayest' < **slaxis*. In Merc the position is less clear. The early glossaries have a few forms which suggest early restoration of *a*, of which the clearest is CorpGl 1576 *slahae*; on the other hand we find EpGl, ErfGl 224 *pearroc*, CorpGl 486 *pearuc* and similar forms, see further §5.31. Ru1 has both *slān* and *slēan*, where the ⟨ēa⟩ spellings could be explained as typical of the WS influence on the text. In Ps(A) we find *slēa* 'I slay', but this form could in that dialect be from either chronology and is hence unhelpful. On the other hand, Ps(A) *fearras* 'bulls' suggests that restoration of *a* was here later than breaking. The evidence as a whole, therefore,[3] suggests that restoration of *a* did not occur over the whole country simultaneously, but that it began firstly in the North-East before the time of breaking and then spread southwards to reach areas such as West Mercia, Wessex and Kent at a time after the period of breaking. It is probably impossible to ascertain the relative chronology of breaking and restoration of *a* in other areas of Mercia, where the changes may even have been contemporaneous.

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[1] The one exception being CollGl 49.827 *ofslānne* 'slay' infl.inf., which could be analogical according to n2 below or a scribal error.

[2] The traditional explanation, that restoration of *a* was later than breaking even in Nbr, must explain *slā*, etc. as analogical formations based on the *faran*-type; so, for example Campbell (1959: §145n2). But if the process were analogical one might expect a few unlevelled forms, which do not exist. Contrast here Li *færenne, færa* beside more frequent *fara*.

[3] The one counter-example is common OE *ēa* 'river', never ***ā*. But *ēa* could be from inflected forms, as is clearly true of Li *ēa* 'rivers'. See too Girvan (1931: §54a1).

(b) Restoration of ā

5.39 In WS only[1] there is some evidence to suggest that /æː/ was similarly retracted to /ɑː/ when a back vowel followed in the next syllable. The change was undoubtedly more restricted than restoration of *a*, and most examples of the change are paralleled by examples with unrestored /æː/. The change only occurs before a single intervocalic consonant, and apparent examples show only intervening /k, ɣ, l, r, p/ as that consonant.[2] Examples in EWS are: *lācnian* (< **lācunōjan*) 'tend', *māgum* 'kinsmen' dat.pl., *slāpan* 'sleep', *slāpian* 'sleep', *swārmodness* 'dullness',[3] *wārum* 'agreement'. But these forms usually exist alongside more frequent forms with *ǣ*, for example, *lǣcnian, mǣgum, slǣpan, slǣpian*. In later WS texts *ā* is rather more frequent, not only in the above words but in others such as *ācumba* 'oakum',[4] *hrāca* 'spittle', *ġestālum* 'accusation' dat. pi. (hence *ġestāl*, etc.), *tāla* 'slanders' (hence *tāl*, etc.). It is especially important to note the pret.pl. of the strong class V verb *liċġan* 'lie', where *lāgon* is more common than *lǣgon*. Also to be found are *wāgon* 'they weighed', *þāgon* 'they partook', alongside *wǣgon, þǣgon*.

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[1] This, of course, follows from the fact that /æː/ had already been raised in nWS to /eː/, see §3.25. The sole exceptions are: Ru1 *ġesāgun* 'they saw', 3× alongside more frequent *ġesēgun, ġesǣgun*, cf. *lāgon*, below, Ru1 *iāra* 'formerly', and CorpGl *ġestālum* 'objection' dat.pl. All three might be taken as examples of WS influence in these texts. CollGl 49.368 *māgos* 'kinsmen' could equally be due to WS influence on a lKt text and is in any case scarcely reliable.

[2] Thus the intervening consonant is either a velar, a liquid, or /p/. A more general statement may be possible, even allowing for the doubtful status of the liquids, see §§2.73–4, which is that restoration of *ā* was most probable if the intervening consonant was [+back], which could in unclear circumstances be extended to [+grave], although the absence of the change with intervocalic /f/ should be noted.

[3] From inflected forms of *swār*, such as *swārum*.

[4] But this example may be due to confusion of the prefix, as suggested by Girvan (1931: §35.3) and Campbell (1959: §162n2).

5.40 The status of restoration of *ā* is rather uncertain, for the change is not carried out with great regularity in either EWS or LWS, and although the change is more frequent in the latter, there are still doublets with /æː/ for all the examples in §5.39 except plural forms of *māgas* 'kinsmen' and *hrāca, ġestāl*.[1] No doubt /ɑː/ was frequently levelled away under analogical pressure, but the frequency of ⟨æ⟩-spellings strongly suggests that the change was never wholly implemented. This applies most obviously to restoration of *ā* with an intervening labial, see §5.39n2. On the other hand, it should be noted that analogical extension of /ɑː/ is even more frequent than analogical extension of /ɑ/, for which see §5.37. Hence forms such as *ġestāl, tāl, swār*, quoted above, should be equated with sporadic *paþ* (5.37n1), nonexistent ***hwat* (5.37(2)). The levelling out of /ɑː/, on the other hand, is most notable in strong class IV verbs, such as *bǣron* 'they bore', in which class /ɑː/ is never found (except before nasals), and in many strong class V verbs, such as *sprǣcon* 'they spoke' and, most notably, *wǣron* 'they were'. The use of analogy to explain the unexpected distribution of /æː/ and /ɑː/ is rather unsatisfactory and has never been resolved, see Kluge (1882).[2]

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[1] But there are many other words with only /ɑː/, such as *māga* 'son', cf. *mǣġ* 'kinsman' where /ɑː/ is never extended into the singular.

[2] The chronology of restoration of *ā* cannot be determined in like manner to the chronology of the restoration of *a*, since crucial examples are lacking, but it seems reasonable to suppose that the changes were contemporaneous.

IV Lowering of second elements of diphthongs

5.41 As noted in §5.1, OE inherited from Gmc four diphthongs, namely */iu, eu, au, ai/. The last of these was monophthongized at a very early stage, see §§5.7–9, but the others remained, developing as prehistoric OE */iu, eu, æu/, for the last see §5.13. These original diphthongs were fed additional members by the breaking of the long front vowels, and they came to contrast with equivalent short diphthongs created by the breaking of the short front vowels, by which arose */ıŭ, ĕŭ, ǣu/, see §5.16.[1] Some time after the period of the sound changes discussed already, see §5.46 for further discussion, the second element of all these diphthongs began to be lowered,[2] except in some Angl dialects when /w/ immediately followed, see below. This lowering was undoubtedly from /u/ to either /o/ or /ɑ/ in the first instance, and the degree of lowering was in part a general reflection of the development of unstressed vowels,[3] see §§6.46ff., 59ff., and in part dependent upon the height of the first element of the diphthong.[4] There were somewhat different developments in the different OE dialects, and in §§5.42–5 we discuss those for WS, Kt, Nbr, and Merc separately. However, the majority of dialects show the shifts: */iu/ > /io/, */ eu/ > /eo/, */æu/ > æɑ/ (= ⟨ēa⟩), and similarly for the short diphthongs,[5] which set of changes we may characterize approximately as follows:

$$\begin{bmatrix} \text{V} \\ \text{–syll} \end{bmatrix} > \begin{bmatrix} \text{–high} \\ \alpha\text{low} \end{bmatrix} / \begin{bmatrix} \text{V} \\ \alpha\text{low} \end{bmatrix} \underline{\qquad\quad}$$

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[1] Occasional archaic spellings for diphthongs which are the result of back umlaut, see §§2.32–4, do not imply that the changes discussed here are later than back umlaut, although this may be in part true, see §5.46. Rather, they primarily show the equivalence of short diphthongs due to breaking and due to back umlaut.

[2] Traditionally this change has been regarded as one of unrounding, as in Luick (1964–40: §119), Campbell (1959: §§275–81), but there can be no doubt that the primary change was a lowering and that unrounding was secondary, see Brosnahan (1953: §66).

[3] As would be expected under these circumstances, the second element was gradually reduced to some kind of centralized vowel, see §§2.30ff. and §2.43.

[4] This leads Lass and Anderson (1975: 34–5) to call the change 'Diphthong Height Harmony', but since the heights of these diphthongs are not invariably equated this term is avoided here, cf. McLaughlin (1979).

[5] This is not the final stage of development of the OE diphthongs, even leaving aside the shifts mentioned in n3 above, since, for example, in some dialects *ī̆o* and *ē̆o* merge, see §§5.155–62.

5.42 In WS the second element of the prehistoric diphthongs is almost invariably[1] lowered to /o/ after a nonlow vowel and to /ɑ/ after a low vowel. Examples for each case are:[2] **bīun* > *bīon* 'be', **dēur* > *dēor* 'animal', **dǣuþ* > *dēaþ* 'death'; **līuht* > *līoht* 'light', **nǣuh* > *nēah* 'near'; **miux* > *miox* 'manure', **feuh* > *feoh* 'cattle', **sæuh* > *seah* 'saw'. The same developments take place before /w/, cf. §5.44.

[1] The most significant exception is Chron(A) 530 *feala* 'many', which reoccurs in ÆHom(P) XX alongside *fela* in other mss. and elsewhere in the same ms., for example, ÆHom(P) XVIII.290 *fela*. The form is due to *a*-umlaut, which is unexpected here, see further §5.105(1) and n1 and cf. also §5.41n1. CP *þēawas* 'servants' is a further isolated example. See also §6.11.

[2] Examples are given in three categories: (1) original Gmc diphthongs; (2) long diphthongs by breaking; (3) short diphthongs by breaking or back umlaut. Examples are given in descending order of height and where examples are wanting this is indicated by omission. Other changes are ignored.

5.43 In Kt the position is obscured by later modifications of the OE diphthongs during the historic period, see §5.160, but there is a sufficiency of forms in eighth- and early ninth-century charters to indicate that the prehistoric development was parallel to that in WS. Examples are as follows (often alongside forms showing the later modifications): **bīun* > Ch 1188 *bīon* 'be', **bebēude* > Ch 1188 *bebēode* 'I request', **hǣuhhām* > Ch 31 *hēahhām* (place-name);[1] **nēuhor* > Ch 1200 *nēor* 'nearer'; **niumanne* > Ch 1482 *niomanne* 'take' infl.inf., **ġeweurþiæ* > Ch 1188 *ġeweorðiae* 'honour' pr.subj., **wæulh-* > Ch 31 *wealh-* 'foreigner' (in place-name).[2]

[1] Note even earlier Ch 23 *āēanberhti* (personal name).

[2] The development before /w/ seems not to be evidenced in such texts.

5.44 In Nbr the lowering of the second element is rather different and more complex than elsewhere, and furthermore a distinction has to be drawn between the position in Ru2 ('South Northumbrian' = SNbr) and the other ('North Northumbrian' = NNbr) texts. The position in SNbr is discussed under (1) below; the position in NNbr under (2).[1]

(1) The dialect of Ru2 diverges from WS, Kt in that the reflexes of */æu, æŭ/ of whatever origin are more often spelled ⟨ē̆o⟩ than ⟨ē̆a⟩, the ratio in the case of the long diphthong being approximately 3:1, and in the case of the short diphthong 6:1 (Lindelöf, 1901: §§33, 48). Similarly, we find for the reflexes of */eu, eŭ/ both ⟨ē̆o⟩ and ⟨ē̆a⟩, in the ratio 6:1 for the long diphthong, 8:1 for the short diphthong. On the other hand, the reflexes of */iu, ıŭ/ are always spelled ⟨ī̆o⟩. It is clear, therefore, that ⟨ē̆o⟩ and ⟨ē̆a⟩ are equivalent spellings in this dialect,[2] and from this it must be assumed that the second element was lowered

only to a mid vowel, regardless of the height of the first element. It is unlikely that the first elements of these diphthongs were also equated, giving a merger of the diphthongs phonologically as well as orthographically, see Campbell (1959: §278n3), Brunner (1965: §35A1), but see also further below. Examples of the various types are: **onsīun* > *onsīon* 'face', **bēud* > *bēod* 'table (2× alongside *bēadum* 1×), **bǣud* > *bēod* 'commanded' (11× alongside *bēad* 4×); **bitwīuhon* > *bitwīon* 'between', **nēuhliċiġa* > *nēoliċiġa* 'approach' (36× alongside *ġenēalocade* 1×);[3] **iursiġa* > *iorsiġa* 'grow angry', **feurr* > *feor* 'far' (10× alongside *fear* 12×, cf. §5.30n1), **ġæurd* > *ġeord* 'enclosure' (81 × alongside *ġeard* 15×). Before /w/ there is very little trace of the retention of /u/ common in the other Nbr texts (see below), and thus we find *īowih* 'you', etc. for /iu/, *hrēownisse*, etc. 'repentance' against rare *hrēunisse*,[4] and so too with *oncnēow* 'he knew', both for /eo/.

(2) In contrast to Ru2 the NNbr texts Li and DurRitGl show predominantly ⟨ea⟩ for the reflexes of */eu, eŭ, æu, æ̆u/ and ⟨eo⟩ spellings are rare. But as in Ru2 the two spellings were equivalent and there was consequent confusion of the two, see examples below. It would appear, therefore, that in NNbr the second element of the OE diphthongs was lowered to /ɑ/ provided that the first element was [-high].[5] Examples from the two texts are: **onsīun* > *onsīon* 'face', **þēude* > *þēade* 'nation' (alongside *þēod*), **lǣufa* > *lēafa* 'faith', cf. *lēaf, lēof* 'beloved' and *bibēod* 'requested';[6] **nēuhlēċa* > *nēolēċa* 'approach'; **iurre* > *iorre* 'anger', **heurte* > *hearte* 'heart' (alongside *heorte*), **hæurd* > *heard* 'hard'.[7] In these texts /u/ frequently remains unlowered before /w/ if the first element is nonlow, and thus we find ⟨ī̆uw, ē̆ow⟩ spellings.[8] Such spellings can then be simplified to ⟨ī̆w, ē̆w⟩ or ⟨ī̆u, ē̆u⟩. Typical examples are: *īwer, īuer* 'your', *hrēunisse* 'repentance'.[9] Both NNbr and SNbr texts show rare ⟨æw⟩ forms for */euw/, such as Li *hrǣwende* 'repenting', DurRitGl *ġiflǣue* 'flow' pret.subj., Ru2 *sǣwe* 'sowed', which are usually regarded as scribal errors (Luick, 1914–40: §128A), although Rydland (1977), on the basis of some occasional modern dialect forms, suggests that there may have been a regular alternative development with lowering of /e/.

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[1] There are few significant forms in the eNbr texts, but the following should be noted. BDS 5 *dēoth-* 'death' is more probably an archaic spelling (=**dǣoth-*) than an indication of SNbr ⟨ēo⟩ for ⟨ēa⟩; RuthCr *heafunæs, fearran, biheald* are ambiguous, since the rune may either show lowering of the second element as in NNbr or may indicate no more than a diphthongal pronunciation, see Girvan (1931: §42a2), Page (1961). Other spellings in these texts or in Bede and LVD are merely archaic, see §§2.32–4 for examples.

[2] See Lindelöf (1901: §33) and Campbell (1959: §278(c)n3). Note that if Ru2 *sċeal* 'shall', *sċeattas* 'treasurs', *sċeacrum* 'robbers' dat.pl. show palatal diphthongization of

/æ/, then the consequent diphthong is always spelled ⟨ea⟩. But these forms are difficult, see further §5.51 and n3.

[3] And once *ġinoelicade* with ⟨oe⟩ for ⟨ēo⟩.

[4] On ⟨ē̆u⟩ for ⟨ē̆ow⟩ see below.

[5] But exceptionally Li regularly has *bihianda* 'behind' against *bihionda* (1×).

[6] ⟨ēo⟩ spellings are more frequent in LiGl than DurRitGl, which only has *ēostorliċ* 'Easter' adj. (13×) and *ēore* 'ear' (1×).

[7] The only ⟨eo⟩ spellings I have noted are DurRitGl *beorno* 'sons' and *eornungum* 'merit' dat.pl.

[8] There are occasional ⟨ēaw⟩ spellings which may have the same significance as the ⟨ǣw⟩ spellings discussed below, such as *hrēawnisse* 'repentance'. Note that the forms are not restricted to strong class VII verbs.

[9] Some support for this failure of lowering may be found in the especially frequent use of ⟨eo⟩ for the back umlaut of *e* with following *u* or *o*, for example, *feolo* 'many', *seofo* 'seven'. But it is difficult to know how much weight to attach to these forms.

5.45 In Merc the normal development seems to be similar to that in WS, and hence we find examples such as (taken from Ps(A)): **bīum* > *bīom* 'I am', **lēufa* > *lēofa* 'beloved', **ġelǣufa* > *ġelēafa* 'beloved'; **nēuhlǣċan* > *nēolǣċan* 'approach'; **iurre* > *eorre* 'angry', **eurþe* > *eorþe* 'earth', **æurm* > *earm* 'arm'. Ps(A) especially, however, has a number of forms with ⟨ē̆a⟩ for ⟨ē̆o⟩, such as *nēasade* 'drew near', *ðēada* 'nation' gen.pl., *earðe* 'earth', *wearðiað* 'honour' imp.pl. Such forms are rare in Ru1, for example, *hrēad* 'reed', *wearp* 'threw', and in the early glossaries only EpGl, ErfGl have such spellings and there only for ⟨ēo⟩: *uuēadhōc* 'hoe' and two or three others. In Ps(A) the use of ⟨ē̆a⟩ for ⟨ē̆o⟩ gives rise to forms with ⟨ē̆o⟩ for ⟨ē̆a⟩: *dēode* 'dead' acc.pl., *hēofud* 'head', *beorn* 'children', *feodrum* 'father' dat.pl.[1] The later Merc merger of *ī̆o* and *ē̆o*, see §5.158, causes further confusion, with new ⟨ē̆a⟩ spellings for earlier ⟨ī̆o⟩ arising: *astēapte* 'deprived', *ðēastrum* 'darkness' dat.pl.,[2] *earre* 'anger', *ondwleatan* 'face' dat.sg.[3] A fuller list of the various forms can be found in Campbell (1959: §§275–6, 281).[4] Before /w/ both Ps(A) and Ru1 have a minority of forms which suggest retention of /u/ as in NNbr. Examples are: Ps(A) *oncnēw* 'knew', *trēw* 'tree', *ġetrēwliċe* 'faithfully', HyGl 4 *ðīwġen* 'serve' pr.subj.pl. (for **ðēwġen*), Ru1 *īu* 'you', *ġetrē(u)we* 'true', *hrē(u)(w)nisse* 'repentance', *cnēuris* 'generation'. The few such forms in EpGl, ErfGl, for which see Pheifer (1974: §41), may well be no more than archaisms, since the early glossaries have such spellings in other words too.[5]

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[1] Campbell (1959: §§275–6) sees these ⟨ē̆o⟩ spellings in Ps(A) as archaic or conservative forms. But their relative frequency in the text suggests that this explanation is unlikely. On the other hand, ErfGl 411, CorpGl 877 *beosu* 'purple', CorpGl 400 *weorras* 'calluses' (cf. §5.29), 545 *seorwum* 'devices' dat.pl. are much more probably archaisms.

[2] The reading is uncertain, see Sweet (1885: 312).

[3] If these forms are not due to confusion of ⟨ĕ̄o⟩ and ⟨ĕ̄a⟩, then *ĭ̄o* and *ĕ̄o* must have merged prior to the lowering of the second element. But this is unlikely given the probable chronology, see §5.46.

[4] Note especially Ps(A) *weagas* 'ways' (3×) alongside normal *wegas* and, once only, *weogum* dat.pl. For an alternative explanation, from Kt scribal influence, of this and other ⟨ea⟩ spellings see Ball (1970: 465).

[5] For archaic spellings see §§2.32–4 and also n1 above.

5.46 The chronology of the above changes is rather uncertain. Since archaic spellings such as Rune 48 *bæurnæ* 'son' dat.sg. seem to show that the epenthetic vowel due to breaking was originally /u/ and that the diphthongs from breaking became identical to, or the short counterparts of, the orginal Gmc diphthongs, it is fair to suppose that the above changes occurred after the time of breaking. Unfortunately this argument is not entirely flawless since archaic spellings can also be found for the product of back umlaut, such as CollGl 12 *eutende* 'eating', but such forms are exceedingly rare and may be quasi-archaic, see §5.41n1. Even where archaic spellings of these diphthongs occur, they are relatively infrequent (being commonest in spellings of personal and place-names where archaisms might be expected and are of uncertain significance). This makes it highly probable that the change was well under way before the time of the earliest texts.[1] Consequently the major problem is whether the changes took place before or after the period of palatal diphthongization and *i*-umlaut, the two major changes which were later than breaking and restoration of *a* but also fully completed by the time of the earliest texts. The most probable suggestion is that of Luick (1914–40: §291), that the lowering was a gradual process which began before these changes but which may not have been complete by the time that they were over. Yet the use of ⟨ĕ̄a⟩ both for the lowering of */æu, ǣ̆u/ and the palatal diphthongization of */æ(ː)/, even in ninth-century charters such as Ch 264[2] *(h)adheldġeate, healh*, or LRid 10 *ġeatum* 'ornamentally', 8 *sċeal* 'shall' against the breaking diphthong in CædH(M) 7 -*ġeard*, could imply that the lowering was relatively early, since the forms from palatal diphthongization prove that ⟨ĕ̄a⟩ was a spelling for a diphthong with a fully lowered second element, see §5.49.[3] Forms such as Ps(A) *earre* 'anger' are due to scribal confusion or Kt influence, see §5.45 and n4, and do not prove a late date for the lowering. Yet the lowering we have discussed here is eventually accompanied by a reduction of the vowel, which is observable as a process during the historic period, see §6.62.

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[1] For an alternative view see Campbell (1959: §275). In a synchronic context Lass and Anderson (1975: 125–9) order lowering (= Diphthong Height Harmony, §5.41n4) after *i*-umlaut, but McLaughlin (1979) argues the reverse. It should be noted, however, that there is scarcely any evidence for a synchronic reflex of the lowering, which plays no role in the morphophonology of historic OE.

[2] A later, ninth-century, copy of the original 778 charter.

[3] Not so, apparently, Campbell (1959: §276).

V Palatal diphthongization

5.47 The changes discussed in I–III above are recognizable as both phonologically and chronologically homogeneous, whereas those discussed in IV provide a bridge between those earliest changes and those to be discussed below. From the phonological point of view the earliest changes are concerned with either original Gmc low vowels or with various velarization processes; the changes to be discussed in the next few sections, on the other hand, are mainly related to fronting processes, the major exception to this being back umlaut, see §§5.103ff.

5.48 What are probably the earliest amongst this second group of changes are those caused by the influence of preceding palatal consonants on stressed vowels,[1] generally subsumed under the title of palatal diphthongization. It is extremely important to note that there were three different types of palatal consonant in the language of the period, since the types do not share the same distributional patterns.[2] Type 1 consists of original Gmc palatals, that is, exclusively Gmc */j/ > OE /j/ as in *ġēar* 'year'; Type 2 consists of original Gmc velars which were unconditionally fronted before every stressed vowel, that is, Gmc */sk/ > OE /ʃ/, as in *sċēap* 'sheep'; Type 3 consists of original Gmc velars which were fronted before or after a stressed front vowel, that is, Gmc */ɣ/ > OE /j/, */k/ > OE /ʧ/, as in *ġifan* 'give', *ċeaf* 'chaff'. In addition to the different types of palatal consonant, three different types of stressed vowel might be affected by palatal diphthongization: (1) 'original' front vowels, that is, vowels which were front in WGmc or became front by the operation of the various sound changes already discussed in this chapter; (2) umlauted front vowels, that is, vowels which only became front through the operation of *i*-umlaut; (3) back vowels. In each of these cases, for different reasons, the actual or alleged influence of preceding palatals is phonologically controversial or dubious, and therefore each type is discussed separately below.

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[1] The traditional classification of the changes as due to the influence of initial palatals is somewhat misleading. All that is required is that the palatal must directly precede a stressed vowel, that is, the palatal should be initial in a stress foot. Thus *sċeaft* 'shaft' and *ġesċeaft* 'creation' both show diphthongization after /ʃ/, and the latter example has no diphthongization after /j/, since /e/ is unstressed and /j/ is not initial in a stress foot.

[2] For full details of /j/ < Gmc */j/ see §§4.6–9; for full details of the other palatals which are derived by the OE changes of palatalization and assibilation, see §§7.15–43.

(a) Palatal diphthongization of original front vowels

5.49 In the prehistoric period of OE, when the front vowels /æ(ː), e(ː)/ from Gmc **ă̄*, **ĕ̄* were preceded by a palatal consonant of any of the three types described in §5.48, then these vowels came to be written as ⟨ĕ̄a, ĭ̄e⟩ respectively.[1] The most commonly held view, very forcibly expressed as early as Bülbring (1900b), followed in essentials by Luick (1914–40: §168), Girvan (1931: §64), Campbell (1959: §§185, 188), Brunner (1965: §90), is that this orthographic change reflects a genuine diphthongization and that the diphthongs which were created became, sooner or later, identical to other diphthongs represented by ⟨ĕ̄a, ĭ̄e⟩. There is some disagreement as to the original nature of the diphthongs, for Bülbring, Brunner, and Girvan hold that they were originally rising diphthongs which later became falling, whereas Luick considers the diphthongs originally to have had variable prominence with a later split into rising and falling diphthongs, and Campbell views them as being from the beginning falling diphthongs. A minority view, perhaps first seen in Dieter (1898) – against which see Bülbring (1900b) – and later in Daunt (1939), Stockwell and Barritt (1951) – against both of which see Kuhn and Quirk (1953) – Lass and Anderson (1975), and Colman (1985), regards the shift as no more than orthographic, with the ⟨i, e⟩ immediately following the palatals being purely diacritic, indicating the palatal nature of the consonant. There are four principal arguments in favour of the majority view.[2] Firstly, the later development of the sounds produced by this process is identical to that of breaking and other diphthongs represented by ⟨ĕ̄a, ĭ̄e⟩. Thus just as *seah* 'saw' > *seh* and *hēah* 'high' > *hēh*, so too *ġeat* 'gate' > *get* and *ġēar* 'year' > *gēr*. Therefore it seems sensible to suppose that the sounds produced by palatal diphthongization had fallen together with the other diphthongs during the OE period and before the later OE/ME monophthongizations. Secondly, in those texts where the orthographic changes are to be observed (see below for details), they are carried through with a regularity which is more likely to correlate with a phonological shift than with a purely graphic function, see §§5.50, 53 for exemplification. Thirdly, the test-case word *ċȳse* 'cheese' can only be explained on general principles if it is assumed that the diphthongization was a genuine sound change; otherwise it must be explained away in an ad hoc fashion, see §5.72 for discussion. Fourthly, it is clearly possible to explain palatal diphthongization as a natural phonological process, which it makes it *prima facie* plausible. But this last point is vulnerable, for one common explanation is undoubtedly phonologically unsafe. That is, leaving aside the question of stress prominence, the view represented in Campbell (1959: §188) that the diphthongs due to palatal diphthongization were originally identical to the diphthongs produced by breaking. It is inconceivable that, for example, the influence of a following velar on /æ/, as in breaking, should produce a sound identical to that produced by the influence of a preceding palatal on /æ/. It is more likely that a preceding palatal would cause a partial raising of /æ/ together with diphthongization, the second element being dissimilated to low central, so giving a diphthong of the order of [ɛa]. A parallel change can be supposed for original /æː/, and for original /e(ː)/ the same process would give [ɪə, ɪə̆].[3] Through eventual reduction of the second element, where appropriate, the distinction between such diphthongs and the earlier diphthongs would become so minimal as to encourage orthographic identity, especially within a system where devices to represent diphthongs were limited, see Hogg (1979b: 97–8), Luick (1914–40: §171), Brunner (1965: §90A1). The only other important argument for denying the overall genuine nature of the sound change relies on the general arguments against short diphthongs discussed in §§2.19–29, which are ultimately unconvincing. The question of the relative prominence of the two elements of the diphthong seems undecidable. Luick's view of variable prominence, after Child (1903: 11–14), may have most to recommend it, although in the vast majority of cases the diphthongs quickly became falling. In the light of the above discussion we must conclude that palatal diphthongization of original front vowels was a genuine sound change, which may be approximately characterized as:[4,5,6]

$$\begin{bmatrix}\text{V}\\ n\ \text{high}\\ -\text{back}\end{bmatrix} > [n{+}.5\ \text{high}]\begin{bmatrix} n{-}.5\ \text{high}\\ +\ \text{back}\end{bmatrix} \;/\; \begin{bmatrix}\text{C}\\ -\text{ant}\\ +\text{cor}\end{bmatrix}$$

[1] These spellings, of course, represent only the usual development in EWS. For more detailed discussion of the various developments according to date and dialect, see below.

[2] For further and more detailed arguments see Bülbring (1900b: 97–104).

[3] Evidence in favour of the assumption of partial raising can be found in the Nbr shift exemplified in **sċēp* > *sċīp*, see §5.54 for discussion. See also §5.212n2 for some relevant evidence from late texts.

[4] It should be remembered, as stated above, that [ɛa, ɛ̆a] soon merge with /æu, æ̆u/, and then develop as they do, see §§5.41–6. The development of [ɪə, ɪə̆] involves merger with the other sounds reprsented by EWS ⟨īe, ie⟩, eventually to the monophthong /ï/ if §5.164 is correct. Here we are concerned with the initial process only.

[5] '*n*+.5', '*n*–.5' are ad hoc devices to show slight raising and lowering respectively.

[6] With the exception of Girvan (1931: §64A) it seems not to have been suggested that older diphthongs, from whatever source, could have been subject to this change; yet this seems quite plausible. In such cases we may assume a slight raising of the first element of the diphthongs, but this raising would not have been sufficiently significant to be reflected in the orthography, nor would it have caused phonemic split. Against this view see Luick (1914–40: §174).

5.50 In WS /æ/ and /æː/ when subject to the influence of a preceding palatal are diphthongized to [ɪə̆], [ɪə] respectively, with, see §5.49, later merger with the other sounds represented in WS by ⟨ē̆a⟩.[1] Examples of the change (in both EWS and LWS) are: *sċeatt* 'treasure', *ċeaf* 'chaff', *ġeaf* 'gave'; *sċēap* 'sheep', *ċēace* 'jaw', *ġēar* 'year', *ġēafon* 'they gave'.[2] For discussion of the interaction of this change and *i*-umlaut, see §5.72.

[1] Sometimes this leads to ambiguity, for in a number of words ⟨ē̆a⟩ may represent either the diphthongization of /æ(ː)/ or the influence of a palatal consonant on /ɑ(ː)/. Examples of this are *ġeatu* 'gate' nom.pl., *ġēarum* 'years' dat.pl. The resolution of the ambiguity is very difficult, since it depends upon whether or not /ɑ(ː)/ due to restoration of *ā̆* has been analogically levelled from the sing. or not, see §5.37 for discussion of the analogies involved. For the initial consonant of *ġeatu* see §7.41n1.

[2] There are few exceptions to this change, but note that *sceððan* 'injure', with *i*-umlaut, is the regular form in WS. It seems certain that the word is an Angl loan, see Wenisch (1979: 211–15). Other occasional exceptions, such as CP 73.10 *ġæġlbærnes* 'wantonness', CP(C) 350.22† *sċeppend* 'Creator', Or *sċæl* 'shall' (2×) may be due to Merc influence on the spelling. Ælfric regularly has *ġesthūs* 'guest-house', apparently with *i*-umlaut of undiphthongized /æ/. The form could be an Angl loan.

5.51 In Nbr there is a clear distinction between NNbr (including the eNbr texts) and SNbr in their treatment of /æ/[1] after a palatal. In NNbr there is a large number of spellings indicating diphthongization, such as LRid *sċeal* 'shall', *ġeatum* 'ornamentally', LiGl *sċeal, sċeafte* 'creature' dat.sg., DurRitGl *sċeall, ċeaster* 'castle'. Alongside these are many spellings which indicate /æ/, thus RuneAuzon *ċæstri*, Li *sċæl, sċæftes*, DurRitGl *ġisċæft* 'creation'. Doubtless this variation implies either that the sound change was only partly implemented, or that scribes were uncertain as to how to represent the diphthong, or both.[2] In SNbr there appears usually to have been no change of pronunciation, but note Ru2 *sċeal* (2×). Otherwise /æ/ remains, for example, *ġisċæft, ċæstre, ġæf* 'gave'. Thus SNbr contrasts with NNbr but parallels Merc, see §5.52, in having no palatal diphthongization except in one idiosyncratic example.[3]

[1] There are, of course, no examples of /æː/ in Nbr.

[2] Such uncertainty would seem to be the best explanation of several spellings with ⟨eæ⟩ in both Li and DurRit Gl, such as *sċeæftes, -ġeæf* 'forgave'. This is simpler than the suggestion of a different phonological development, as in Campbell (1959: §186), and is probably supported by the very confused DurRitGl 1.121.3 *geæð* 'they go', where there can be no question of palatal influence.

[3] That is, provided one acepts that Ru2 *sċeattas* 'treasures', *sċeacrum* 'robbers' dat. pl. show the influence of a palatal consonant on /ɑ/, following Lindelöf (1901: §60a), see further §§5.44n2, 5.70.

5.52 Outside WS and Nbr the only signs of palatal diphthongization of /æ/ occur in Ru1, where a minority of forms show the change, for example, *ċeastre, ġeatt, ċeaf, sċeal, -sċeatta*, alongside *ċæstre, sċæl,* and other words with undiphthongized forms only. This may be a further product of WS influence on the scribe of this text.

5.53 In WS /e/ and /eː/ when subject to the influence of a preceding palatal are diphthongized to [ɪə̆], [ɪə] respectively, with, see §5.49, later merger with the other sounds represented in EWS by ⟨ī̆e⟩.[1] For EWS examples of the diphthongization of /e/ are: *sċieran* ‘cut’, *ġiefu* ‘gift’.[2] For the very frequent spellings with ⟨i⟩, such as *sċiran, ġifu*, see §§5.163–5. In LWS both ⟨i⟩ and ⟨y⟩ spellings are found, such as *ġifu, ġyfu*, see §5.167. Although instances of /eː/ are rare in WS, examples of diphthongization run parallel to those above; hence EWS examples include *ġīe* ‘ye’ (occasionally, alongside usual *ġē*, showing the regular development in unstressed syllables, and which is also the normal LWS form).[3]

[1] The change is carried out very regularly, exceptions being rare. Instances of exceptions in EWS, which may be due to Merc influence, appear to be confined to Oros: *sċeld* ‘shield’, *ġelp* ‘boast’ (noun only), *deofolġeld* ‘idolatry’, all alongside diphthongized forms. Exceptionally EWS *sċēd*, past tense of *sċeādan* ‘divide’, never shows the change, but the more usual WS form is *sċeād*, with the vowel of the present tense. In LWS ÆHom(U) has 13.67 *ġeldum* ‘tax’ dat.pl., alongside ÆHom(H) 13.67† *ġildum*, and the former may be nWS.

[2] See too GD 44.14 *ċiellan* ‘fire-pans’.

[3] Other examples are etymologically uncertain, but it is probable that EWS *ġīet, ġīt*, LWS *ġȳt, ġīt* ‘yet’ should be included here. Occasional poet. *ġīen* ‘yet’ does not occur in WS prose and is a borrowing of Merc *ġēn*, see Wenisch (1979: 161–5).

5.54 It seems certain that there is no palatal diphthongization of /e/ in Nbr, hence *sċeld* ‘shield’, etc.[1] The status of the development of /eː/ is, however, more problematic. After /ʃ/ the only relevant form is common Nbr *sċīp* < **sċēp* (with the Angl development of *ǣ*$_1$). The standard assumption, that this is probably due to diphthongization to **sċīep* with later monophthongization, relies on a presumed parallel with WS, and it is equally possible, and simpler, to assume that we have here a raising of /eː/ > /iː/. By contrast, after /j/ (from whatever source) there is normally no change of /eː/, hence *ġēr* ‘year’, *forġētun* ‘forgotten’. But two words, namely *ġē* ‘ye’ and *ġē* ‘yea’, show forms apparently indicating diphthongization. For *ġē* ‘ye’ the distribution of forms is as follows: Li usually has *ġīe* alongside less frequent *ġē(e)*, except in MtGl where both forms are equally frequent;[2] DurRitGl has *ġīe* only; Ru2 has mainly *ġē(e)* with *ġīe, ġī* 2× each. For *ġē* ‘yea’ the distribution parallels that for *ġē* ‘ye’ in DurRitGl, Ru2, but in Li *ġēe* is normal, with *ġīee, ġī* once each. Any determination of what sound(s) these spellings might represent is difficult, but the following seems relevant. Firstly, ⟨ie⟩ spellings are restricted to two words which are likely to have been used most often in weak stress positions (possibly this may have been truer of *ġē* ‘ye’ than *ġē* ‘yea’, see §5.53). Secondly, the use of ⟨ie⟩ to represent a diphthong would be highly unusual outside EWS, see §2.37. Both these considerations make it most likely that the spellings reflect some kind of raising rather than diphthongization, with ⟨ie⟩ used to represent a vowel of approximately the value [ɪ(ː)].[3] A further argument in favour of the above is that it is highly improbable that in OE weakly stressed syllables could contain diphthongs. In summary, the evidence from Nbr suggests that in that dialect there was never any palatal diphthongization of either /e/ or /eː/, but that /eː/ was raised after either /ʃ/ or /j/ under conditions which are not yet clear.

[1] Various forms such as *ġife* 'give', *forġif* 'forgive' in DurRitGl only, alongside more frequent *(for)ġefe*, etc., are not to be included here. Parallel forms are to be seen outside Nbr, thus EpGl 525 *ġibaen* and, possibly, frequent LWS *ġifan*, etc. No wholly satisfactory explanation of these forms, which appear to be analogical, has been given, see firstly Bülbring (1900b: 101–2), Luick (1914–40: §§172A2, 173A3), and, for the possibility of Scandinavian influence, which is probable for ME, Björkman (1900: 154–6).

[2] LkGl(Li) 11.42 † *ġīæ* and MkGl(Li) 14.42 *ġǣ* show a purely orthographic substitution of ⟨æ⟩ for ⟨e⟩.

[3] Length would, of course, depend on stress, see §2.80. If the base form were the weak stress form, as is usual in OE, it would be preferable to see these examples as raisings of /e/ rather than /eː/.

5.55 In Kt and Merc there are no signs of palatal influence on /e(ː)/ except Ru1 *sċīpa* 'sheep' gen.pl. alongside frequent *sċēp*, etc., cf. §5.54.[1]

[1] PsCa(A) 7.82 *ġildu* 'I pay' is more probably an isolated example of the extension of an umlauted vowel into 1st sg.pr.ind. from 2nd, 3rd sg.

(b) Palatal diphthongization of umlauted front vowels

5.56 In WS and Nbr only, hence not Ru1, see §5.55, when *ē̆* and *ǣ̆*, but not *ȳ̆*, appear as the result of *i*-umlaut, then these vowels undergo a development parallel to that undergone by original *ē̆* and *ǣ̆* in WS. Phonetically this poses no new problems, and the change can be characterized in the same terms as those for palatal diphthongization, see §5.49, except that it should be noted that the change appears to take place only after /ʃ/, not after /j/ < Gmc */j/, except in one dialect, see §5.58. Naturally the change could not take place after the Type 3 palatals of §5.48. The change is, however, restricted to a few lexical items, and even in those cases it is no more than sporadic. For this and the chronology of the change see §5.72.

5.57 In EWS the only examples of this diphthongization appear to be in CP(H), which has *sċiendan* 'hurt' (12×), cf. CP(C) † *sċendan*, and *tōsċēat* 'cuts in two', cf. LWS *tōsċǣt*, showing, respectively, diphthongizations of the *i*-umlaut of **ã* and **ā*. Examples of the change from LWS are available for the umlauts of *a*, *ā*, *ã*, and *ō*, as follows: *sċeaððiġ* 'harmful' alongside *sċæððiġ*; *sċēað* 'sheath' alongside *sċǣð*;[1] regular *sċyndan* 'hurt, shame', *ġesċyndnyss* 'shame', note however WHom *sċendan* (3×); *ġesċȳ* 'shoes', never ***ġesċē*.[2] Other words in WS have undiphthongized forms throughout, such as *sċencan* 'pour', *sċǣnan* 'break'. In Nbr the change appears to be confined to Li, where only two words show the change: *(ġe)sċēoea* 'shoes' alongside *sċōēas* and MkGl(Li) 5.4 *tōsċēænde* 3sg.pa.ind. against JnGl(Li) 19.36 *tōsċǣnas*.

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[1] Note here the inverted spelling ÆLS 3.72, 11.210 *sċǣt* 'he shoots'.

[2] As can be observed, the diphthong undergoes the normal LWS development to /y(ː)/, see §5.167.

5.58 The only example of diphthongization, more properly raising, of an umlauted fronted vowel after /j/ is DurRitGl *ġīmung* 'marriage' and derived forms (13×), which must have the development **ɣaumj-* > **ɣēamj-* > **ġēamj-* > **ġēm-* (*i*-umlaut) > *ġīm-*, where the final change parallels Nbr **sċēp* > *sċīp*, see §5.54.

(c) Palatal diphthongization of back vowels

5.59 In all dialects after /j/ (< Gmc */j/ only, see §5.48) and in Nbr and most WS after /ʃ/ (< Gmc */sk/), spellings such as ⟨eo⟩ often appear where etymologically the sequence palatal consonant + back vowel would be expected. Thus we find *ġeoc* 'yoke', *sċeort* 'short' rather than **ġoc*, *scort* (and similarly for long vowels). The question of whether such spellings represent genuine diphthongs or whether the ⟨e⟩ (sometimes ⟨i⟩) is merely a diacritic is one of the most difficult in OE phonology. Independently of the other arguments concerning short diphthongs, see §§2.19–37, 5.49, there are two points in favour of a diacritical interpretation. Firstly, the general later development of such forms is as if there never had been any diphthong present, thus ME *yok*, *scort*. Secondly, similar spellings arise in unstressed syllables, where there can be no question of a diphthong being present, such as EWS *heriġeas* 'armies', CP(C) † *adwǣsċeaþ* 'they quench', and therefore it would seem plausible to assume the same usage in stressed syllables. Against this it may be argued that in LWS spellings such as *sēċean* 'seek' are rare, see §2.68, and therefore that it would be unwise to seek too close a parallel between the spellings in stressed and unstressed syllables. With regard to the first point, although the statement is true in general, there are particular cases in OE where a diphthongal development apparently has to be postulated. The most notable cases involve *i*-umlaut, but there may be others, see further the discussion in §5.60. Thus it should be clear that the general problem is not easily resolvable, and since it seems unlikely that we can obtain more than particular answers to particular cases, these will be discussed in more detail in the appropriate sections below. Where a diphthongal interpretation seems preferable a further question arises, namely whether the diphthongs were rising or falling. Luick (1914–40: §169) and Girvan (1931: §§127, 70) argue that although in most cases the diphthongs were rising, a substantial minority were falling. Campbell (1959:

§§171, 176) suggests that only a very small number were falling. On the other hand Brunner (1965: §§90, 92) appears to believe that all such diphthongs were rising.[1] It is argued below that Brunner is correct in denying the necessity to propose falling diphthongs. Rather, where diphthongs occur we may suppose that the change is due to the insertion of a nonsyllabic high front vowel [i̯] between a palatal consonant and a back vowel, since that interpretation is consistent with the phonetics, the orthography, and later developments. When diphthongization occurs, therefore, the change may be characterized approximately as follows:

$$\emptyset > \begin{bmatrix}\text{V}\\ +\text{high}\\ -\text{back}\\ -\text{syll}\end{bmatrix} / \begin{bmatrix}\text{C}\\ -\text{ant}\\ +\text{cor}\end{bmatrix} \underline{\qquad\qquad} \begin{bmatrix}\text{V}\\ +\text{back}\end{bmatrix}$$

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[1] But Brunner believes that in many instances the spellings are purely diacritical, see §2.36n1.

5.60 In EWS when /j/ is followed by /u(ː)/ the sequence ⟨ġeo-⟩ usually results. Instances of this change are *ġeoc* ‘yoke’, *ġeoguþ* ‘youth’, *ġeong* ‘young’, *ġeō* ‘formerly’.[1] In LWS, however, a slightly more frequent spelling is ⟨iu-⟩, hence *iuc, iuguþ, iung, iū* (alongside ÆCHom *ġiū* (6×)).[2] This spelling is rare in EWS, and other variant spellings are equally rare and largely restricted to EWS, thus CP 201.21, CP(C) 196.8 † *ġioke, ġioguþ, ġiong*, CP(C) 2.3 † *ġiō*; *iongum, iō* (also ÆGram 37.11); CP(C) 178.21 † *ġiungan*. Most of these spellings are no more than expected orthographic variations,[3] and taken together they would seem to confirm that a sound change of the form [ju(ː)] > [ji̯u(ː)] has taken place.[4] The only examples with /o(ː)/ are of *ġeōmor* ‘sad’ and its derivatives, which are regularly so spelled, showing an important contrast with the *ġeong/iung* type above.[5] An example with /ɑː/ due to restoration of *a* is *ġeāra* ‘formerly’, but see §5.50n1. With [ã] the most common spelling is *ġeo*-, thus *ġeond* ‘through’, *beġeondan* ‘beyond’, also CP 443.24 *ġeonre* ‘yon’ dat.sg.fem. In EWS there are also occasional ⟨ġio⟩ spellings, such as *ġiond, beġiondan*, which do not persist. There is no reason to suppose that any of these spellings reflect anything other than an insertion of [i̯] parallel to that above, but the virtually complete absence of ⟨ġea⟩ spellings[6] is noteworthy given the distribution of the *man/mon* type, see §5.5. It may be that Brunner (1965: §92A5) is correct in assuming this to be the result of the stereotyping of an unstressed form, but it is probably also an indication that a genuine sound change has taken place rather than the simple insertion of a diacritic.[7]

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[1] The length mark is placed over the second element primarily in order to distinguish such spellings from the spellings for long diphthongs from other sources. Such placement

would also imply a rising rather than a falling diphthong wherever a diphthongal interpretation is appropriate.

[2] Luick (1914–40: §169.1), Campbell (1959: §172), and Brunner (1965: §92.1A) state the contrary, that is, that in LWS the usual spelling is ⟨ġeo⟩, but this seems to be based on a misreading of Bülbring (1902: §298). The ratios of ⟨iu⟩ to ⟨geo⟩ spellings in Ælfric for *iuc, iuguþ, iung* are, respectively, 2:5, 2:3, 2:1, whilst *ġeō* occurs only at ÆLet 3.120 alongside very frequent *iū*.

[3] As is shown by Oros *Geoweorþa* representing Lat *Iugurtha*.

[4] It could be argued that the ⟨iu⟩ spellings are more likely to represent /ju(ː)/, but these spellings must be placed in context. Firstly, they occur alongside ⟨geo⟩ spellings, which probably show a diphthong. Secondly, it is difficult to see what other spellings scribes could have used, for ⟨gio⟩ and ⟨geo⟩ would be equivalent, and ⟨giu⟩ would be equivalent to the former, because of the merger of /io/ and /eo/ in WS, see §5.155. Note that in both Nbr and Kt, where the development of diphthongs is different, the orthography allows a more exact representation, see §§5.61, 63.

[5] PsGl(G) 6.7 *iūmerunge* 'sadness' is the only example with ⟨iu⟩, and is probably an inverted spelling due to the false equation of ⟨geo⟩ and ⟨iu⟩.

[6] SedGl 2.1, 2.3 has *ġeand* glossing *per*.

[7] For forms with /i/ in the following syllable which are subject to *i*-umlaut, see §5.64.

5.61 The Nbr forms which correspond to those in WS are: *ġiung* 'young', *beġeonda* 'beyond' 3× alongside *beġeande* 1×, whilst Li *ġeocc*, DurRitGl, Ru1 *ioc* may show a development from */jok/ rather than */juk/. Additionally there is the form *ġeōna* 'yet' and, with /j/ transferred from the past, *ġeonga* 'go', *ġeong* 'way' alongside BDS 3 *hiniongae* 'departure'. Li, DurRitGl *ġiungo* 'I go', Li *ġiunga* 'I may go' presumably snow the same development, but with an alternative present from *_gungan_. More frequent than *ġiung* is *ġing*, for which see §5.64, and the Nbr equivalent of *ġeoguð* is always *ġiguð*, for which see §5.68n4.

5.62 The relevant forms in Merc are as follows: Ps(A): *ġung* beside PsGl(A) 118.9 *ġing* glossing *juvenior, ġuguð* beside *iuguð, ġeond-, ġeāmrung*; Ru1: *iuguð, iung, ġeond, beġeonda, iāra*; CorpGl *ġeoc, ġeond, biġeonan* 'beyond'. It is most probable that the ⟨iu⟩ spellings indicate the same development as in LWS, see §5.60, and the ⟨gu⟩ spellings in Ps(A) are more likely to show orthographic uncertainty over the correct representation of [ji̯u] than a failure of diphthongization, that is to say, ⟨gu⟩ and ⟨iu⟩ are here equivalent spellings.[1] In *ġeāmrung* we may have either confusion of ⟨ea⟩ and ⟨eo⟩, see §5.45, or, less probably, a development where Gmc *_ā_ + nasal remains unrounded, see Brunner (1965: §80A3). For *ġing* see §5.64.

[1] This is made more probable by PsGl(A) 24.7 *ġuiuðu*, where ⟨i⟩ and ⟨g⟩ have been transposed. Other spellings include 87.16 *ġuðe*, 102.5 *ġuðuð*.

5.63 In Kt the regular spelling of relevant forms is ⟨gio⟩, for example, Ch 1510 *ġioc*, CollGl 49.201 *ġiond*, 49.94 *ġiomras*, but note Ch 1264 *iocled* and Ch 161 ('Merc-Kt', Sweet 1885: 455) *ġeocled*, also CollGl 49.815 *iunges*.

5.64 Only a few forms show this change with /i/ in the following syllable, examples in WS from original */ju(ː)/ being *ġingra* 'younger', *ġingest* 'youngest' and CP(C) 70.19 † *ġicða*, CP(H) 71.18 *ġiecða* 'itch'.[1] Exceptions are rare: CP(H) 387.33 *ġiongra*, 451.28 *ġiongrum*. For Nbr Li has *ġingesta* (2×) alongside *ġiungra* (3×), Ru2 has *ġingra* (3×). For Merc Ps(A) has *ġingrum* (1×) alongside *iungra, ġungra* (3×), see §5.62, *ġungesta* (1×). It would appear from this that the normal development is *to ġi-*. Most probably the original change is from */ju/ > [ji̯u], see §5.59, which is then subject to *i*-umlaut giving *[ji̯y], which is then monophthongized to /ji/.[2] Unumlauted forms, such as *ġiungra, ġiungesta*, have been levelled in favour of pos. *ġiung*, etc.; conversely pos. *ġing*, see examples in §§5.61–2, shows extension of umlaut from the compared forms.[3] Alongside *ġeond* EWS has fairly frequent *ġind*, and in LWS WHom has *ġynd*, which may derive from */jɑndi/ with *i*-umlaut to */jiynd/ and subsequent monophthongization to EWS [jɪnd], LWS [jynd], see §§2.37, 5.155ff. Similar forms appear in EpGl *beġinan* 'beyond', Li *beġienda*, and AldV1 *ġend* probably shows a parallel form in Kt.[4]

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[1] With ⟨ie⟩ as an inverted spelling for /i/, cf. LchI&II *ġicþa* (frequent). Note also CP(H) 71.11 *ġiocða*, derived, apparently, from a form without following /i/.

[2] Thus Child (1903: 50). Alternative proposals, such as Luick (1914–40: §195), Campbell (1959: §178), Brunner (1965: §§92A1, 31A2) and references therein, assume a falling diphthong of the type /io/, with umlaut in WS to *ie* and monophthongization after a palatal to /i/. But for WS this fails to explain the total absence of ⟨y⟩ spellings, and a similar objection holds for Angl where the alleged development is: *iu > *yu > *y > i (Brunner, 1965: §92A1) or *i̯u > *iu > *y > i (Campbell, 1959: §176). Luick (1914–40: §169A4) suggests for Angl that umlauted /io/ is monophthongized by Angl smoothing, but this not only necessitates a shift of prominence but also implies that such smoothing takes place before [ŋ], which seems implausible. Note further that if it is assumed that there was no diphthongization after /j/, then the development of */jungira/ would be to **/jyngra/, in which case the actual range of spellings would be inexplicable. Thus these shifts provide extremely strong evidence for the development of rising diphthongs after /j/. Note finally that in the above discussion no account has been taken of length, purely for the sake of simplicity.

[3] So Paul (1880: 42) and others. Campbell (1959: §176n2) denies the analogy, at least for Ps(A), but the denial contradicts what is said in the body of the text. See also n2 above.

[4] For an alternative explanation of EWS *ġind* and Kt CollGl 49.111 *ġinddrencað*, see Brunner (1965: §92A5).

5.65 Evidence which would suggest a similar process after /ʃ/ is lacking in Merc and Kt, but there are varying degrees of such evidence in EWS, LWS, and Nbr. Since the treatment of */ʃu(ː)/ and of */ʃo(ː)/, */ʃɑ(:)/ is different in each of these dialects, they are discussed separately below.

5.66 In EWS the only form suggesting diphthongization of */ʃu/ > /ʃju/ is *sċeolon* ‘they shall’, occurring (CP 4×, Oros 1×) alongside usual *sċulon*, see §5.68n5 for further discussion. Otherwise ⟨scu-⟩ remains, for example, *sċūfan* ‘shove’, *sċuldor* ‘shoulder’, *onsċunian* ‘shun’, *sċūr* ‘shower’. Thus it would appear that there was normally no change in EWS.

5.67 In LWS the position is not radically different, although the evidence is more variable and difficult. *Sċulon* remains as the normal form in WHom alongside *sċeolon* (2×) and in WPol alongside *sċylon* (6×), whereas in Ælfric the normal form is *sċeolon* alongside a minority of *sċulon* forms. For the development to *sċylon*, also occurring at ÆHom 31.12, ÆLet 3.7, WHom 17.33, see §5.68. The only other forms regularly to show ⟨sceo-⟩ are *sċeōfan* ‘shove’ beside rare *sċūfan* and *sċeocca* ‘devil’ beside less frequent *sċucca*.[1] In the verb form the spelling probably represents the normal strong class II form, that is, *sċēofan* not ***sċeōfan*, rather than the analogical *sċūfan*, see OED shove *v*. In the latter case Gmc **skukkon* could develop to either *sċucca* or *sċocca*, cf. EpGl, ErfGl *sċocha*, LS 29.250 *sċocca* and §3.10, and hence *sċeocca* may show the normal development of */ʃo/, see §5.69. Otherwise normal WS forms are, for example, *sċuldor, onsċunian, sċūr*.[2] The balance of probability, therefore, must be that the limits of the change in LWS were very similar to those in EWS.

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[1] There are a few ⟨sceu⟩ spellings: ÆGram 137.1 *sċeufe*, PPs 105.27 *sċeuccum*, ÆCHom I 18.250.1 *sċeule*, which appear to argue against the position immediately below. But their status must be uncertain, and against these forms note invariable *sċuton* ‘they shot’, *sċufon* ‘they shoved’.

[2] WHom 8b.30 has *sċeoldru* ‘shoulders’ and outside Wulfstan and Ælfric there are a few ⟨sceo⟩ spellings, such as, And 510 *sċeōr* ‘shower’, Lch II 1.1.17 *sċeorfe* ‘scurf’ dat.sg., PPs 52.1 *onsċeondliċe* ‘abominable’. These might well suggest a sub-dialect where some change took place, but they hardly constitute sufficient evidence to suggest that the change was general in LWS (*pace* Campbell, 1959: §180).

5.68 In NNbr the regular development of *sċulon* is to *sċilon*, thus Li, alongside equally frequent *sċiolun, sċiolon* due to back umlaut of /i/, see §5.104(3). CædH(L) also has *sċilun* beside CædH(M) *sċylun*, CædH(D,P) *sċiulun*. In other forms the normal development is to *sċȳ̆*-, thus Li, DurRitGl *sċȳa* ‘shadow’ (alongside more frequent *sċūa*),[1] *ġesċyfen* ‘shoved’, *sċyldrum* ‘shoulders’ dat.pl., *sċyniġa* ‘shun’, *ofsċyfende* ‘shoving’. There are two forms with *sċyū̆*-: LkGl(Li) 12.54 *sċyūr* ‘shower’, DurRitGl 127.1 *ofsċyufon* ‘they shoved’.[2,3] The most probable explanation of these forms, to parallel the change after initial /j/, see §5.61, is that */ʃu(ː)/ developed an epenthetic glide to give /ʃju(ː)/ and that this rising diphthong usually monophthongized to give /ʃy(ː)/.[4] This would also explain LWS *sċylon*, §5.67, with EWS, LWS *sċeolon* showing unmonophthongized forms, see §5.66–7, parallel to NNbr *sċiulun sċyūr*, etc.[5] The extent of the same change in SNbr is uncertain, for Ru2 has only *sċiolun* (2×), *sċyldrum* (1×) against *sċūa* (2×), *sċūr* (1×), see Lindelöf (1901: 37).

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[1] Since the initial syllable of *sċūa* is both stressed and open, the vowel of that syllable must be long, regardless of origin.

[2] LiMtProl 8 *shya*, MtGl(Li) 4.16 *sċūia* show only orthographic variation within normal limits for the text.

[3] Li also has MtGl 12.10 *sċriuncen*, LkGl 18.4 *ġesċryncan*, MtGl 13.6 *ġesċriungon*, forms of *sċrincan* 'shrink', which apparently suggest a parallel shift after /ʃr/.

[4] Campbell (1959: §176) explains these forms as due to an original rising diphthong becoming falling, then monophthongising to /y/ with later unrounding. For details of and objections to this proposal see §5.64n2. It is far more probable that the normal result of monophthongization of /ju(ː)/ is /y(ː)/ but that in the case of *sċilon* there is an unusual monophthongization to /i/. Presumably the same process gives Nbr *ġiguð*, rather than *ġeoguð*, see §5.61.

[5] It must be emphasized that in the dialects discussed in §§5.66–8, *sċulon* undergoes developments peculiar to itself. Hence arguments such as that referred to in n4 above, in so far as they rely upon the development of *sċulon*, have no particular relevance outside that word. Furthermore, the existence of apparently diphthongal forms of that word in WS do not prove that the change represented by those forms was general to that dialect.

5.69 The sequences /ʃo(ː)/, /ʃɑ(ː)/ sometimes remain spelled ⟨sċo-, sċa-⟩ in WS, sometimes are spelled ⟨sċeo-, sċea-⟩.[1] As a general guideline it can be stated that ⟨e⟩ is less likely to be inserted before *ō̆* than before *ā̆*, and that such insertion is more likely in LWS than EWS. Thus, for example, EWS has only *sċort* 'short', whereas LWS usually has *sċeort* beside less frequent *sċort*.[2] Examples of the variation include: *sċ(e)op* 'poet', *sċ(e)ond* 'disgrace', *ġesċ(e)ōp* 'created', *sċ(e)ōgian* 'shoe', *sċ(e)acan* 'shake', *sċ(e)adu* 'shadow', *sċ(e)ādan* 'divide'.[3] Note especially that for Gmc */a/ + nasal ⟨ea⟩ and ⟨eo⟩ spellings occur in the expected dialectal distribution for the monophthong, see §5.5. Thus for WS the usual spelling is ⟨ea⟩, for example, *sċ(e)amian* 'be ashamed', *sċ(e)anc* 'shank', and infrequent ⟨eo⟩ is found only in EWS. This contrasts with the position after /j/, see §5.60. Given the variety of spellings, the development of Gmc */a/ + nasal, and the fact that in EWS similar spellings are to be found in unstressed syllables, see §2.68, all together with the failure of ME evidence to suggest that a diphthong was ever present in these words, it seems most probable that ⟨e⟩ is here purely diacritic, indicating the palatal nature of preceding *sċ*-.[4]

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[1] The spelling ⟨io⟩ occurs at CP 77.7 *sċiolde*.

[2] But as an indication of the wide variations which this guideline glosses over, consider the ratio of *sċeolde*:*sċolde* spellings in two EWS and two LWS texts: CP(H) – 44:40; Or – 46:0; ÆCHom 115:3; WHom 13:26. Whilst this may not be indicative of general ⟨eo⟩/⟨o⟩ usage in these texts, it probably correctly suggests that such usage is as often a matter of individual scribal preference as of dialect variation.

[3] Ru1 has various forms of *sċeādan* (4×) alongside *sċādan* (1×), which are best explained as due to WS scribal influence. On the other hand, a few examples in the early Merc glossaries such as *sċeadu* seem to be best interpreted as examples of the present orthographic phenomenon, see further §5.106n2 and references.

[4] Probably the strongest argument in favour of a diphthongal interpretation is an apparent parallelism with the behaviour of *sċū̆-*, but such a purely theoretical argument is not compelling, especially in the light of §5.67.

5.70 In NNbr the regular spellings of original /ʃo(ː)/, /ʃɑ(ː)/ are ⟨sċeō-, sċeā-⟩, hence *sċeort* 'short' and many other forms parallel to those cited in §5.69.[1] Given the greater degree of diphthongization of */ʃu(ː)/ in Nbr compared with WS and the regularity of the spellings, it is probably not possible to decide whether the shift is purely orthographic or represents an actual change in pronunciation. In SNbr the shift is seen only after /ʃɑ(ː)/, hence Ru2 shows a contrast between *sċeacca* 'shake', *-sċeaðo* 'devil',[2] and *sċortiġe* 'shorten', *ġisċōp* 'created'. Again it is virtually impossible to evaluate the orthographic evidence.

[1] But DurRitGlAbbrev has: *sċort* (2×), *sċoma*; JnGl(Li) has *sċōēs* 'shoe' gen.sg.; CædH(M,L) has *sċōp*.

[2] Alongside *-sċeoðo*, see §5.44(1), and *morsċæðo*, where ⟨æ⟩ is probably insignificant (Lindelöf, 1901: 37).

(d) Summary

5.71 The set of changes described above has very few morphological consequences, since any change is usually seen throughout the paradigm. It should be noted, however, that the various ablaut series may be obscured, as in *ġildan, ġeald, guldon, golden* 'yield' III; *sċiran, sċear, sċēaron, sċoren* 'cut' IV; *ġifan, ġeaf, ġēafon, ġifen* 'give' V. Orthographic change is seen in other verbs, such as *sċeacan* 'shake' VI.

5.72 With regard to the relative chronology of the changes, it is clear that they cannot be earlier than palatalization of Gmc velars, since, wherever appropriate, the palatals arising from that change have the same effect as original palatals. Hence the change cannot be earlier than restoration of *ā̆*, see §7.25 and Hogg (1979b: §2). We may also, therefore, reasonably assume that the present changes were later than breaking, see §5.38.[1] The major question, therefore, must be whether these precede or follow *i*-umlaut.[2] Since the relative chronology of palatalization of Gmc velars and *i*-umlaut cannot be determined with absolute certainty, although it is probable that the former was well under way and perhaps even complete by the time of the latter, see §§7.25–6, 30, Hogg (1979b: §5), Colman (1986), it is essential to rely primarily on the evidence afforded by the interaction of palatal diphthongization and *i*-umlaut. It has long been established that the key form here is WS *ċȳse* 'cheese' < Lat *cāseus*. As argued by Kuhn and Quirk (1953: 146–7),[3] if *i*-umlaut preceded diphthongization, then the following development would have occurred: */kɑːsi/ > */kæːsi/ (first fronting) > */ʧæːsi/ (failure of *i*-umlaut, see §§5.74, 80) > */ʧæɑsi/ (palatal diphthongization), giving ***ċēase*. The reverse order, however, gives: */kɑːsi/ > */kæːsi/ > */ʧæːsi/ > */ʧæɑsi/ (palatal diphthongization) > */ʧïːsi/ (*i*-umlaut, see §§5.74, 164), giving EWS **ċīese*, LWS *ċȳse*.[4] Those who argue against this suggest one of three possibilities. Firstly, that so-called palatal diphthongization is purely an orthographic feature (Daunt, 1939; Stockwell and Barritt, 1951: 26). Secondly, that *ċȳse* is the result of an idiosyncratic combination of *i*-umlaut and the influence of an initial palatal (Samuels, 1952: 36). Thirdly, that *ċȳse* is an exceptional form (Lass and Anderson, 1975: 281–2).[5] The first of these arguments is refuted by the evidence above clearly indicating diphthongal pronunciation, and the last two arguments, since they are ad hoc, cannot be strong enough to refute the evidence of *ċȳse*. At first sight it would appear that the existence of forms due to palatal diphthongization of umlauted front vowels would suggest that in general the diphthongization was the later change, but this is not so. Such diphthongization is only sporadic, see §§5.66–8, and this strongly indicates that the change was already in full operation before the time of *i*-umlaut, but that it continued to operate in a much weakened form for some time after that.

[1] Hence the argument of Girvan (1931: §64a), which in any case smacks of special pleading, that breaking and palatal diphthongization were roughly contemporaneous, falls because of the undoubted chronological relation between restoration of *a* and the palatalization of velars.

[2] Note that second fronting and palatal diphthongization are mutually exclusive. Nbr forms such as *sċiolun* presumably show that palatal diphthongization precedes back umlaut.

[3] The argument is originally due to Sievers (1883: 206), supported by Bülbring (1900b: 88).

[4] The absence of **ċīese* from our texts is accidental and unimportant.

[5] Colman (1985: 16–17) also denies the reality of palatal diphthongization in *ċȳse*, but her position seems eventually compatible with the approach taken here.

5.73 It is perhaps worth recalling that in those cases where palatal diphthongization is merely the reflection of an orthographic change, most obviously in unstressed syllables, see §5.59, and in those cases where /ʃ/ is followed by a nonhigh back vowel, see §§5.69–70, then there can be no question of establishing any kind of relative chronology. On the other hand the introduction of diacritic spellings in such instances is not inconsistent with the relative chronology of the related phonological changes which permit the creation of such spellings.

VI *I*-umlaut

5.74 During the prehistoric OE period stressed vowels became sensitive to a high front vowel or approximant in the following syllable, and there thus appears a set of changes which is amongst the most thoroughgoing and important in OE. This set of changes is known under the collective title of *i*-umlaut. The sounds which cause *i*-umlaut are: /i/, as in */doːiθ/ > /deːθ/ = *dēþ* 'he does', see below; /j/, as in */trummjan/ > /trymman/ = *trymman* 'strengthen'; /y/, as in */gɑduling/ > */gɑdyling/ > */gædyling/ > /gædəling/ = *gædeling* 'companion'.[1,2] As will be observed from these examples, the number of intervening consonants is generally irrelevant, for possible exceptions see especially §5.80. There is, therefore, no reason to suppose that we are dealing here with anything other than a type of vowel harmony, a process already well known in WGmc, see §3.6.[3] Vowels which are potentially subject to *i*-umlaut may be classified into three types: (1) back vowels; (2) front vowels; (3) diphthongs.[4] All back vowels are subject to *i*-umlaut, when they change to the corresponding front vowel, thus */u(ː)/ > /y(ː)/, */o(ː)/ > /ø(ː)/,[5] */ɑ(ː)/ > /æ(ː)/. In S. dialects especially, /ø(ː)/ unrounds to /e(ː)/, hence *dēþ* above, see further §5.77. The *i*-umlaut of front vowels is much more restricted, for long vowels are never affected, the umlaut of */e/ is uncertain, and the umlaut of */æ/ is not fully carried out. With these reservations, however, we may posit changes of the form */æ/ > /e/ and (?) */e/ > /i/, see §§5.80–1 for full details. For the *i*-umlaut of diphthongs there is a clear difference between WS and nWS. In WS */io, ıŏ/ is umlauted to the sound represented by EWS ⟨ie⟩, whose precise quality is uncertain, but which may represent at first a diphthong of the order of /iy, ıy̆/, see Colman (1985), which perhaps then falls together with the diphthong produced by palatal diphthongization of /e/ as the monophthong /i(ː)/, see §5.164. For the possible umlaut of */eo, eŏ/ see §5.84 below. The umlaut of */æɑ, æ̆ɑ/ is the same as the umlaut of */io, ıŏ/. The changes occurring here are obscure, partly because of the methods used to represent diphthongs in WS, but it seems likely that in *i*-umlaut the first element of the diphthong was raised where possible, and that this raising was accompanied by raising and fronting of the second element. If this is so, it implies that */io, ıŏ/ was already on its way to /eŏ/, since otherwise the first element of the diphthong could hardly have been raised.[6] In nWS the only diphthong to be affected by *i*-umlaut is */æɑ, æ̆ɑ/, which changes to /e(ː)/. Presumably */io, ıŏ/ is unaffected because its first element has not started to lower, unlike the position in WS, see above and n6. Given the above we may characterize the *i*-umlaut of back vowels, front vowels, and diphthongs approximately as follows:

Back vowels:

$$V > [-\text{back}]\ /\ \underline{\qquad\quad}\ C_0 \begin{bmatrix}+\text{son}\\ +\text{high}\\ -\text{back}\end{bmatrix}$$

Front vowels:

$$V > [n+1\ \text{high}]\ /\ \begin{bmatrix}\underline{\qquad}\\ n\ \text{high}\end{bmatrix} C_0 \begin{bmatrix}+\text{son}\\ +\text{high}\\ -\text{back}\end{bmatrix}$$

For diphthongs:

$$VV > \overset{\langle[\text{max high}]}{[n+1\ \text{high}]}\ \overset{[\text{max high}]\rangle_{\text{WS}}}{\begin{bmatrix}n+1\ \text{high}\\ -\text{back}\end{bmatrix}_{\text{nWS}}}\ /\ \underline{\qquad\quad}\ C_0 \begin{bmatrix}+\text{son}\\ +\text{high}\\ -\text{back}\end{bmatrix}$$

In principle, at least, the three rules for each dialect can be collapsed together, but the result is rather complex, cf. Lass and Anderson (1975: 128).

[1] /y/, of course, can only arise due to the operation of *i*-umlaut, and the phenomenon by which an umlauted vowel can itself cause umlaut is often known as double umlaut (Luick, 1914–40: §198 and A2). It is clear that /y/ has the same relevant phonetic characteristics as /i,j/, and therefore it is proof that *i*-umlaut is an iterative rule, see S. R. Anderson (1974: 124–33). This, of course, contradicts the claims concerning the properties of iterative rules made in Halle and Vergnaud (1988: 34–5). For details of iterative umlaut, and the possibility that in WS the umlaut of */æ:ɑ/ could also cause umlaut, see §5.76.

[2] There are three major types of exception to *i*-umlaut. Firstly, if /j/ is the result of the palatalization of earlier */ɣ/, as in **dæġ* 'day', see §§7.16, 29, then that /j/ does not cause umlaut, see for further discussion §5.86. Note here that Ps(A) *deġ*, etc. is due to second fronting, not *i*-umlaut, see §§5.87ff. Secondly, if /i/ is due to the raising of /e/ before /j/ in unstressed syllables, as in *hāliġ* 'holy', *huniġ* 'honey', *mōdiġ* 'brave', see §7.70n1, then there is no umlaut. The same applies to the medial /i/ of weak class 2 verbs, such as *lufian* 'love', where earlier */e/ is the *i*-umlaut of */o/, see further §5.85(8). Thirdly, an /i/ in the second element of a compound does not cause umlaut provided that the word is still treated as a transparent compound. This is most frequently seen in personal names, such as *Ōsriċ*, never ***Ēsriċ*, but may also be the cause of alternations such as *ānliċ, ǣnliċ* 'only', *ārliċ*, Ps(J) 30.25 *ǣrliċe* 'early', JnGl *ārmorġen*, *ǣrmorġen* 'in the early morning', *þusliċ*, *þysliċ* 'such', *sāmtinges* (rare, cf. Campbell, 1959: §204.2), *sæmtinges* 'in close connexion'. But for alternative explanations see §5.85(10a). Note, however, that the presence or absence of *i*-umlaut is not caused by stress, which is merely a reflex of the morphological status of the element containing /i/, cf. Sievers (1902) and most authorities.

[3] Two other explanations of *i*-umlaut have been common in the past, although both are now discredited. The first of these is the *Mouillierungstheorie* of Sievers (1901:

§765), see too Luick (1914–40: §200), which claims that the process is one by which a consonant or consonants immediately preceding /i/ are palatalized and these palatalized consonants in turn front or raise the stressed vowel. For the arguments against this theory see Samuels (1952: 38–40), Campbell (1959: §192). The second explanation, again associated with Sievers, see Brunner (1965: §94A), suggests a process of *i*-epenthesis before a palatalized consonant (via the *Mouillierungstheorie*). For arguments against this suggestion see Samuels (1952: 40n3) and §2.18.

[4] For the *i*-umlaut of diphthongs created by the palatal diphthongization of back vowels see §5.64.

[5] For the arguments in favour of the transcription /ø(ː)/ rather than /œ(ː)/ see §2.17.

[6] The umlaut of the WS diphthongs is obscured not merely by the orthography, but by other factors too. That the first element was raised, even for */io, ıŏ/, is probably confirmed by the failure of that diphthong to umlaut in nWS, for if the first element was already maximally high it could not raise further, and it is probable that the diphthong lowers first in WS, see §5.155. Although the phonemic merger of /io/ and /eo/ was clearly later than *i*-umlaut, it is possible that some lowering had already taken place in WS only.

(a) **i-*umlaut of back vowels***

5.75 In all dialects of OE earlier */u(ː)/ is umlauted to /y(ː)/, regularly spelled ⟨y⟩.[1,2] Examples are very numerous and are typically of the types *trymman* ‘strengthen’ < **trummjan, brȳd* ‘bride’ < **brūdi-*. The change is found not only with all cases of */u(ː)/ developed from WGmc, but also with */u/ by nWS combinative breaking of */i/, as in *wyrþ* ‘honour’, see §5.29 for details and examples.

[1] For examples of the archaic spelling ⟨ui⟩ for ⟨y⟩ see §2.18. In the earliest texts there are also a number of spellings with ⟨u⟩, such as EpGl *uppae* ‘upper chamber’, ErfGl 81 *ġedurstip* [sic, for *ġedyrstiġ*] ‘bold’, CorpGl 723 *ontūdri* ‘barren’. These are scarcely of any significance, nor are other variants such as ⟨wy-, wi-⟩, for which see Stolz (1908: 55), Ångström (1937: 20).

[2] For the LWS treatment of this *y̆̄* see §§5.170–3, and for the shift to *ĕ̄* in Kt see §§5.194–5.

5.76 As noted in §5.74, when */u/ is umlauted to /y/ and stands in a medial syllable, then that /y/ can itself cause *i*-umlaut.[1] Examples are available for the subsequent umlaut of all monophthongs except /æ/, since that had become /ɑ/ by restoration of *a*, and, accidentally, /oː/.[2] Examples for each vowel are: **ufumist* > *yfemest* ‘upmost’, **ūtumist* > *ȳtemest* ‘outmost’, **ovusti* > *æfest* ‘haste’,[3] **gaduling* > *gædeling* ‘companion’, **aþuling* > *æþeling* ‘prince’, **ætgaduri* > *ætgædere* ‘together’, **fastunnja* > *fæsten* ‘fasting’, **haluftri* > *hælfter* ‘halter’,[4] **haruvist* > *hærfest* ‘harvest’, **latumist* > *lætemest* ‘last’, **saturni-dæġ* (< Lat **satūrni*) > *sæterndæġ* ‘Saturday’, **avunsti* > *æfest* ‘envy’,[5] **āmurja* > *ǣmyrġe, ǣmerġe* ‘embers’ (< Gmc **ai*), **ārundi* > *ǣrende* ‘errand’ (with **ā* due to restoration of *a*). The forms *ǣnīġe* ‘one-eyed’, beside *ānīġe*, and *ǣnlīpe* ‘single’, beside *ānlīpe*, suggest that the umlaut of *ēa* could also itself cause umlaut,[6] which may be a helpful indication of the phonological status of the sounds represented by ⟨ie⟩. But against this is the regular form *endemes* 'similarly' < **andōmis*, see §5.79(1), which has unexpected umlaut in an analogous form.[7]

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[1] This /y/ is soon afterwards reduced to /e/ since it is unstressed, see §6.64.

[2] Included here is the *i*-umlaut of */ɑ/ in those Merc dialects which show second fronting, since that change is probably later than *i*-umlaut, see §5.92. Hence Ps(A) *festen* 'fasting', etc. show second fronting of /æ/ due to iterative umlaut, not umlaut of /æ/ due to second fronting. Included here all the alleged examples of iterative umlaut of */æ/ in Luick (1914–40: §198b), Campbell (1959: §203n1).

[3] Alongside *of(o)st* < **ovosti* without iterative umlaut, see Brunner (1965: §44A4 and references).

[4] It is not necessary to suppose that *hælfter* shows umlaut of */ɑ/ due to failure of first fronting in an *a*-dialect area (§5.15), that is, **halftri* > *hælfter*. But this is probably the explanation of *ælf* 'elf' alongside *ylf*, where the latter shows umlaut of **ea* due to breaking, see further §5.82n4.

[5] It is usual to include here *ǣċe* 'eternal', derived as **ajuki* > **ajyċi* > **ǣyċi* (loss of /j/ intervocalically) > **ǣċi* (hiatus resolution) > **ǣċe*. But it is quite plausible to assume that /j/ umlauts the preceding vowel without iterative umlaut. More common than *ǣċe* is *ēċe*, cf. CædH *ēċi*, where it is probable that intervening /j/ prevented restoration of *a*, giving **æjuċi* > **ejyċi* by umlaut. For a different view see Luick (1914–40: §243A2).

[6] The alternation of umlauted and unumlauted forms here is due to their fluctuating status as compounds, see §§5.74n2, 85(10e).

[7] But Met 9.1 *ǣrlēst* 'cruelty' is of no significance here, even if the nature of the error is uncertain, see Campbell (1959: §204.2n3).

5.77 In all dialects of OE earlier */o(ː)/ is umlauted to /ø(ː)/, usually spelled ⟨oe⟩.[1] Theoretically only */oː/ should be subject to *i*-umlaut, since in WGmc */u/ was retained before a high vowel, see §3.5. Forms with the *i*-umlaut of */o/, therefore, are either loan-words or native words where */o/ was analogically introduced.[2] Typical examples of the umlaut of */o/ and */oː/ are: *doehter* 'daughter' dat.sg., *oele* 'oil' (< Lat *oleum*); *ōēþel* 'home', *fōēt* 'feet'. In WS and Kt especially /ø/ and /øː/ are unrounded to /e/ and /eː/, and unrounding can be seen to a limited extent in Angl also.[3] Unrounding of /ø/ is more frequent than unrounding of /øː/. In EWS /ø/ remains only in *oele* alongside more frequent *ele*, and /øː/ remains only in *ōēþel* alongside more frequent *ēþel*.[4] In LWS only unrounded forms are to be found. Thus in these dialects we may assume that the unrounding was virtually complete by the time of the earliest texts. In Kt there are a number of examples showing unrounding of /ø(ː)/ in the ninth-century charters, and in the tenth-century OccGl 49 the spelling is always ⟨e⟩, see §5.194–5 for full details and discussion. In NNbr the usual spelling of /ø/ is ⟨oe⟩, but both *exen*, *exin* 'oxen' and *merne* 'morning' dat.sg. always have ⟨e⟩, and it is sometimes alleged that this is due to a following palatal consonant or consonant group. With /ø/ due to early shortening of /øː/, see §5.200, Li has *ġebledsad(e)* ‘blessed’ occasionally alongside much more frequent *ġebloedsade*, etc., but DurRitGl always has the rounded forms; note also MtGl(Li) 10.31 *sellra* ‘better’. For /øː/ NNbr usually has ⟨oe⟩, but after *w* ⟨e⟩ is quite common, for example, Li *wēstiġ-, cuēn* beside *wōēstiġ* ‘desert’, *cwōēn* ‘queen’,[5] DurRitGl *ġicwēme* (1×) alongside frequent *ġicvōēme*, etc. ‘pleasing’. But it is likely that ⟨we-⟩ and ⟨woe-⟩ spellings are equivalent, for it is highly improbable that unrounding would take place most frequently after /w/, see the further examples and discussion in §§5.177–8. Other examples of ⟨ē⟩ are confined to Li and are rare, such as MtGl(Li) 8.12 † *tēða*, JnGl(Li) 19.22 *ġerēfa* ‘Pilatus’. In SNbr the facts are quite parallel to NNbr, note especially Ru2 *exen* ‘oxen’, and the only significant divergence is that *bletsiġa* ‘bless’ and forms always appear to be unrounded, for further details see Lindelöf (1901: §§71, 73). In the early Merc glosses /ø(ː)/ generally remains, but occasional examples of unrounding can be found, such as ErfGl 391 *bēċċae* ‘beech’, 889 *ġefēġnessi* ‘repairs’, CorpGl 569 *cellendre* ‘coriander’. In Ru1 /ø/ remains except in *merġenne* (1×) alongside *mærġen, mærġne* the *i*-umlaut of *marne*, see §5.34. With early shortening *bledsade*, etc. is more frequent than *ġebloetsad*. For /øː/ Ru1 has a remarkable number of spellings indicating unrounding, approximately one-sixth of all instances being spelled ⟨ē⟩ (E. M. Brown, 1891: §54).[6] In Ps(A) the only form regularly to show unrounding is *ele* alongside less frequent *oele*, note especially here *oexen* against Nbr *exen*. Other examples are merely sporadic.

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[1] There are a very few spellings with ⟨ǣ⟩ for ⟨ōē⟩: CP 225.5 *onhrǣran* ‘stir’, Oros 258.10 *ġedǣmde* ‘judged’, Bo 54.17 *ġefǣġ* ‘joins’, MkGl(Ru2) 3.5 *ġibǣted* ‘made good’, Ru1 *wǣstenne* ‘wilderness’ (3×), MtGl(Ru1) 24.6 *ġedrǣfde* ‘disturbed’, so too PsGl(I) 76.17, ÆLS 18.88. The significance of these forms is unclear. For the ⟨oi⟩ spellings of early texts see §2.18, and for Kt ⟨eo⟩ for ⟨oe⟩ see §2.17n1. Occasional ⟨eo⟩ spellings elsewhere are probably errors. They are especially common in Ru1, for example, *fēōd* ‘feed’, leading to *ġedēōēmed* ‘judged’, *fēōērdun* ‘they travelled’.

[2] Most notable here are a number of examples in Nbr where pa.parts. of strong verbs show *i*-umlaut of */o/ due to variation of the inflexion, see §5.85(6). Examples are; Li *ġecnoeden* ‘kneaded’, *ġeswoeren* ‘sworn’, *ġewoerden* ‘become’, *awoerpen* ‘thrown away’, Ru2 *ġebroecen* ‘broken’.

[3] But the weak class 2 formative element */oː/ is always unrounded, see §5.74n2.

[4] But CPHead 17 *weldōendum*, CP(C) 8.3 † *dōe* pr.part., pr. subj. of *dōn* ‘do’ are disyllabic analogical formations, see further §§5.133, 147.

[5] *Cwōēn* is due to the i-umlaut of Gmc **ā* + nasal, see §5.78(2).

[6] In addition there are nine examples of various forms of *hēran* ‘hear’ with ⟨ōē⟩, which may suggest that /eː/ and /øː/ had fallen together.

5.78 The developments of Gmc **a* + nasal and Gmc **ā* + nasal when subject to *i*-umlaut are different from one another, and hence are discussed separately below.

(1) In the first instance, at least, Gmc **a* + nasal, which may by the time of *i*-umlaut have been a sound in the region of [ɐ] or [ɔ], see §§5.3–6, is, when umlauted, represented by ⟨æ⟩, presumably representing either [æ] or [œ], the equivalent front vowels. ⟨æ⟩ is a frequent spelling in the earliest texts: EpGl has 23× ⟨æ⟩, such as *aenid* 'duck', *aend* 'and' (< **andi*), *caempan* 'soldiers', against 9× ⟨e⟩, such as *embrin* 'urn', *emer* 'bird'; similarly LRid has *cændæ* 'he begot'[1] and ⟨æ⟩ is frequent in the proper names in BedeH. But very quickly the regular spelling becomes ⟨e⟩: thus ErfGl has 21× ⟨e⟩, 12× ⟨æ⟩, such as *end*, *cempan*, but *aenit*, and in CorpGl ⟨æ⟩ occurs only 3×, see for the above Pheifer (1974: §48). Even the very early CædH(M) has *end*. This would seem to indicate a very early raising of [æ] > [e] or a raising and unrounding of [œ] > [e].[2] For all other OE texts ⟨e⟩ is the regular spelling and ⟨æ⟩ is exceptional; nevertheless there are some texts which show a higher proportion of ⟨æ⟩ spellings than usual, such as Ru1 (E. M. Brown, 1891: §12a), WHom(C) (Whitelock, 1963: 40), ÆHom(F) (Pope, 1967–8: 181), and several of the WS psalter glosses, see Kimmens (1979: xxx) for full references, and for further examples see Vleeskruyer (1953: 9). Bülbring (1902: §171) suggested that ⟨æ⟩ spellings outside the earliest texts belonged to a south-east Saxon patois along the Kt border, but it now seems clear that these forms had a much wider distribution, and probably indicate localized failures to raise the sound as far as [e], cf. references immediately above.[3,4] Typical examples of the normal OE developments are: **sandjan* > *sendan* 'send', **frammjan* > *fremman* 'perform'.[5]

(2) Gmc **ā* + nasal had at the time of *i*-umlaut probably developed only as far as [ɔː], see immediately below for discussion, and this would suggest that when umlauted it became [œː]. However, the regular spellings for the umlauted sound are ⟨ōē⟩ and ⟨ē⟩, following exactly the principles for the umlaut of */oː/ outlined in §5.77, for example, WS, Kt *cwēman* 'please', Angl *cwōēman*, and so for *cwēn* 'queen', *wēn* 'hope'.[6] Similar forms occur where the nasal was lost due to sound changes in Gmc and the prehistory of OE, for example, *ēhtan* 'persecute', *gēs* 'geese', *nēþan* 'venture', *sēfte* 'soft', *smēþe* 'smooth',[7] *tēþ* 'teeth'. We may therefore assume a very early merger of [œ] with /øː/. The evidence for assuming, however, that the original umlaut is of *[ɔː] > [œ] comes from *bremblas* 'brambles' < Gmc **brāmil*, giving sg. *brēmel* and occasional *bræm(b)el*. The latter forms suggest that the original shortening was to the same sound as the umlaut of Gmc **a* + nasal, giving, see above, normal ⟨e⟩, occasional ⟨æ⟩, see also §5.79(1). This could only have happened if the umlauted sound were indeed *[ɔː] rather than *[oː].

[1] Here Hoad (1978: 107) reads *cendæ* 'with uncertain *e*', in contrast to other editors, see Smith (1933: 44).

[2] The raising is a normal phonetic process for nasalized vowels, and is seen frequently in Gmc, see, for example, §§3.11–12. There is thus no reason to suppose the following nasal must have been strongly palatalized, as some writers have suggested, for example, Campbell (1959: §193d).

[3] Although the contrast between EpGl, ErfGl, and CorpGl seems to show that ⟨æ⟩ is the early spelling, ⟨e⟩ the late spelling, it is possible that this reflects no more than sub-dialectal differences, cf. here the short Med 5.10 (Schaumann and Cameron, 1977: 306) which has only ⟨æ⟩ (2×) yet is close to, but later than, CorpGl.

[4] The ME evidence suggests that [æ] persisted most frequently in Essex and parts of Middlesex, see Luick (1914–40: §363A2).

[5] In *bærnan* 'burn' < **brannjan*, *ærnan* 'run' < **rannjan*, and probably *wærna* 'wren' alongside *wrenna*, *r*-metathesis has occurred before the nasalized vowel was raised, hence the vowel became oral and remained as [æ], see Stanley (1952), Hogg (1977b).

[6] Ru1 has a few ⟨æ⟩ spellings, such as *cwǣn*, *cwǣmdon* 'they pleased', for which compare §5.77n1. Such spellings occur very rarely elsewhere. But *nǣm* 'taking', *benǣman*, *ġenǣman* 'deprive' and related forms are most probably reformations of **nōēm*, etc. due to the change of pa.pl. *nōmon* > *nāmon*, despite the dialectal problems, see Bammesberger (1979b) for a review of the evidence.

[7] CorpGl 232 *unsmōþi*, ClGl 1.402 *unsmōþe* 'rough' are parallel to the ⟨u⟩ spellings of §5.75n1.

5.79 Although the developments of earlier */ɑ, ɑː/ when subject to *i*-umlaut are phonetically parallel, their phonological characters are somewhat different, and therefore they are discussed separately below, the umlaut of the long vowel being discussed first.

(1) In all dialects of OE earlier */ɑː/ is umlauted to /æː/, regularly spelled ⟨ǣ⟩.[1] It is probable that in all cases */ɑː/ is due to the normal development of Gmc */ai/, see §§5.7–9,[2] and the *ǣ* which results from *i*-umlaut is usually known as *ǣ*$_2$ in order to distinguish it from *ǣ*$_1$, the normal development of Gmc */aː/ in WS. Typical examples of the umlaut of */ɑː/ are: *hǣlan* 'heal', cf. *hāl* 'healthy', *sǣ* 'sea'. Since the monophthongization of */ai/ was too late for the consequent */ɑː/ to be influenced by a following nasal, see §§5.6–7, the *i*-umlaut of this */ɑː/ is identical to the umlaut of the other examples of */ɑː/, hence *ǣniġ* 'any', cf. *ān* 'one'. But if /æ/ before a nasal is then subject to early shortening before a consonant cluster, then /e/ most usually results, due to raising before a nasal, see §5.78.1 and n2. Examples are: *endemes* 'together',[3] *endleofan* 'eleven', *enwintre* 'one-year-old', Angl *enne* 'one' acc.sg.masc. against WS *ǣ̆nne*.[4]

(2) When /i/ or /j/ stands in the next syllable, then, due to the earlier sound changes discussed in this chapter, Gmc **a* has usually developed to /æ/ by the time of *i*-umlaut, and, except before nasals, for which see §5.78(1), */ɑ/ is the normal phonological development only

before *l*-groups in the *a*-dialects, especially Angl, see §5.15, or by combinative breaking, see §5.31.[5] To these contexts may be added examples of Latin loans containing Lat *a* but which were borrowed too late for first fronting to take place. However, it also appears to be the case that in a large number of words */ɑ/ could come to stand before /i, j/ due to various analogical developments, and it is then, of course, subject to umlaut to /æ/. But the position is complicated by the fact that */æ/ itself is not always umlauted, see §5.80 for further details. In some cases, therefore, the evidence may be ambiguous between umlaut of */ɑ/ and the failure of umlaut of */æ/. Such cases are indicated at the appropriate points below. Because of these complexities the various principal types of */ɑ/ and their umlauts are discussed separately below.

(a) *Failure of first fronting:* In the *a*-dialect areas forms such as **faljjan*, **aldira* occur at the time of *i*-umlaut, and they regularly umlaut to *fællan* 'fell', *ældra* 'older'. Other examples of this change include *cwælman* 'kill', *mæltan* 'melt', *wælle* 'well'.[6] In Ru1, however, there is a minority of forms with ⟨e⟩, namely various forms of *belgas* 'wine-skins' (4×), *eldra* (3×), *cwelman*, *-heldan* 'incline'.[7] These spellings may be an early indication of a general shift to /e/ which occurs in these forms in all Angl dialects of ME except the WMidl, see Ekwall (1917b), Jordan (1974: §62).[8] The same explanation probably holds for the even rarer examples of ⟨e⟩ in the early Merc glossaries, such as EpGl, ErfGl 818, CorpGl 1653 *-felġe* 'felly', which can scarcely be due to the umlaut of **ea*, contra Pheifer (1974: §50.2).

(b) *Combinative breaking*: As discussed in §5.31, in Nbr and the early Merc glossaries */æ/ is sometimes retracted to /ɑ/ rather than diphthongized in breaking environments where there is a preceding or following labial consonant. In such cases the result of umlaut should be /æ/, but instances of /æ/ are quite rare, either because of the sporadic nature of combinative breaking or because of development to /e/ as under (a) above. In Nbr examples are to be found in Li only in various forms of *hwærfa* 'turn', *unðærfe* 'useless', *wærma* 'warm', *wærc* 'pain'.[9,10] The only certain instances in early Merc are EpGl 1091 *auuaerdid* 'damaged', ErfGl 186 *haeruendliċae* 'with contempt', CorpGl 790 *færd* 'army', 517 *ġegaerwendne* 'preparing' acc.sg.masc., 572 *ġeuaerpte* 'he recovered'. Examples such as ErfGl, EpGl 111 *seġilġaerd* more probably show the umlaut of retracted /ɑ/ in weak-stressed syllables. In all these texts these forms are heavily outnumbered by forms such as *hwerfa*, *ferd*, etc.

(c) *Iterative umlaut:* Forms with */ɑ/ due to a following */u/ which is umlauted to /y/ regularly have /æ/, see §5.76 for full details.

(d) Inflexional analogy: In WS the variation between *a* and *æ* in strong class VI verbs was eliminated in favour of *a*, for example, *fare* ‘I go’, see §5.37(5). However, in 2,3sg.pr.ind. this /ɑ/ is then umlauted to /æ/, hence *færst*, *færþ*. In Angl, forms such as *færeð* could theoretically have the same source, but since in those dialects *i*-umlaut is there regularly levelled, see §5.85(6), /æ/ is more probably due to the reverse of the process found in WS. Also to be noted here are various examples of *habban* ‘have’ with the sequence *-æbb-*, such as *hæbbe* ‘I have’.

(e) Derivational analogy: There is a considerable group of words which have related forms where in one case /i, j/ stands in the following syllable and in the other a back vowel stands in the following syllable, for example, *sæċċ* ‘strife’ < **sakkjō* against *sacu* ‘strife’ < **saku*. It would appear that in such cases /æ/ due to first fronting has been levelled out and that here we have examples of *i*-umlaut of */ɑ/. Forms parallel to *sæċċ* ~ *sacu* include: *næss* ‘cape’ ~ *nasu* ‘nose’, *mæċġ* ‘man’ ~ *magu* ‘child’, *ġemæċċa* ‘companion’ ~ *ġemaca* ‘companion’, *wæċċe* ‘watch’ ~ *wacian* ‘watch’, *wræċċa* ‘exile’ ~ *wracu* ‘pain’. All these words, except *sæċċ*, are also found with /e/ as the *i*-umlaut of unlevelled /æ/, that is, *ness*, *meċġ*, *ġemeċċa*, *weċċa*, *wreċċa*. Another group consists of words where the influence of related forms may be more suspect. Firstly, there are the denominal verbs *pæþþan* ‘traverse’, *stæppan* ‘step’, *stæþþan* ‘stay’, where /ɑ/ could only have been restored on the analogy of nom.pl. *paþas* ‘paths’, *stapas* ‘steps’, *staþas* ‘shore’.[11] Secondly there are deadjectival verbs such as *hwættan* ‘sharpen’, *lættan* ‘delay’, related to *hwatu* ‘active’ nom.pl.neut., *latu* ‘late’. Forms with /e/ for both goups include *steppan*, *hwettan*, *lettan*. In view of the fact that *i*-umlaut of /æ/ does not appear to be consistently carried out, see §5.80, all the forms cited here are ambiguous, since they may be due either to levelling away of /æ/ or to failure of *i*-umlaut because of an intervening geminate, and neither explanation is exclusive of the other.[12]

(f) Suffix variation: In some words where there is variation between back and front vowels in an unaccented suffix, /ɑ/ may have been taken over from positions before back vowels and then be subject to *i*-umlaut. Relevant examples include: *ræċed* ‘hall’ (alongside *reċed*), *hæleþ* ‘man’ (alongside *heleþ*). It should be noted that these forms are exclusively poetical, and other forms with parallel *i*-umlaut are Angl, such as Nbr, Ru1 *gæfel* ‘tribute’ ~ *gafol*, EpGl, CorpGl *hæċid* ‘pike’ ~ *hacod*, EpGl, CorpGl *haeċile*, MtGl(Li) *hæċla* ‘cloak’ ~ *haċele*. Hence it may be supposed that these forms are of nWS origin.[13]

(g) Latin loan-words: A number of Latin loan-words show /æ/ as the *i*-umlaut of Lat *a*, for example, *cæfester* ‘halter’ (< *capistrum*),

læden ‘Latin’, *mæġester* ‘master’. The best explanation of such forms is that they were borrowed between the time of first fronting and the time of *i*-umlaut. Sometimes contrasting pairs can be found, one with *i*-umlaut of Lat *a*, such as *cæren* ‘sweet wine’, one with *i*-umlaut of Lat *a* as it develops through first fronting and other pre-umlaut changes, such as *ċyren*. Other such pairs include Nbr *æċed* against *eċed* ‘vinegar’, EpFl *fæċilae* ‘torch’ against *feċele*.[14]

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[1] In Angl, esp. Merc, there are indications that this /æː/ was subsequently raised before dentals, although relevant ⟨ē⟩ spellings are always in a minority. Examples are: EpGl, ErfGl, CorpGl *blēctha* ‘skin disease’, ErfGl *bēdændræ* ‘impelling’, *tēnil* ‘basket’, *urēni* ‘lasciviousness’, CorpGl *ġelēstunne* ‘accompany’, *-tēnel* ‘basket’. Ps(A) has a small number of such forms, as in *lēreð* ‘he teaches’, various forms of *forðrēstan* ‘afflict’, *alēdde* ‘he led away’, also *ūtlēdde* ‘he led out’, *ġebrēded* ‘dilated’, *flēsċ* ‘flesh’. Ru1 has a considerable number of such spellings, proportionately more than other texts, and forms, or their derivatives, which occur more than once are: *ēr* ‘before’, *clēne* ‘clean’, *dēlan* ‘divide’, *hēlend* ‘Saviour’, *hwēte* ‘wheat’. In Nbr single instances of some of the above words occur: Li *flēsċ*, *huuēte*, *ġelēred*, DurRitGl *clēne*, Ru2 *ēlċ* ‘each’. Occasional forms in WS, such as CP 57.8 *kelēd* ‘led away’ are scarcely significant, and the same holds for forms not before a dental, such as ErfGl 681 *sċinlēċan* ‘wizard’, although it is unlikely to be due to Kt influence because of chronological difficulties. For the ME developments see Jordan (1974: §48).

[2] But Nbr *hwǣ̆lċ* ‘which’, *swǣ̆lċ* ‘such’, of variable length, probably show *i*-umlaut of **hwā̆lik*, **swā̆lik*, although their history remains problematic. WS *brǣw* ‘eye-lid’, *lǣwan* ‘betray’ could either show *i*-umlaut of */ɑː/ or merely unretracted /æː/ before /wi/, paralleling the behaviour of /æ/ in the same position, see §§5.14n1, 5.24. The latter is the more probable, cf. PsGl(D) 10.5 *brēwas*.

[3] If this is an example of *i*-umlaut, see §5.75.

[4] The same process is not found with *nanne*, *nænne* ‘none’ acc.sg.masc.

[5] MtGl(Ru1) *mærġen*, *mærġne* ‘morning’ dat.sg. also belong here, being the umlauted forms of *marġen*, see §5.34. Note that such forms are occasionally found outside Angl, for example, ÆLS 3.344, 6.253 *mærġen*.

[6] Ps(A) *welle* (2×) most probably shows original **e*, cf. ON *vella*, OHG *wella*.

[7] But *elles* ‘else’, usually included here, has /ll/ due to WGmc gemination and thus shows normal *i*-umlaut of */æ/.

[8] Both their geographical spread in ME and their total absence in Ps(A) exclude the possibility of /e/ due to second fronting, see further the discussion and references in §5.87.

[9] WS *wærċan*, *wærċ* alongside rare *wyrċ* show borrowing of the Nbr form.

[10] MkArgGl(Li) 1 *ġeċærred* ‘turned’, alongside frequent *ġeċerred*, etc. is of no significance here.

[11] *Stapas* shows reformation as an *a*-stem plural alongside *stepe* nom.sg. showing the original *i*-stem form with *i*-umlaut, see §5.85(2).

[12] A further example of the *i*-umlaut of analogical /ɑ/ may be *gæst* (poet.), cf. nWS *ġest*, WS *ġiest*, Gen 1346 *gasta* gen.pl., but this could also be due to failure of *i*-umlaut, see §5.80. Despite the evidence of alliteration the quality of initial *g* is uncertain.

[13] Note also ErfGl *gebil*, *heċele*, with *e* due to second fronting.

[14] *Cælċ* ‘cup’ against Ps(A) *celċ* merely shows absence v. presence of second fronting and therefore should not be taken under here. *Calic*, with no palatalization, *i*-umlaut, or syncope, is a late Latin loan.

(b) I-*umlaut of front vowels*

5.80 The only front vowels to be affected by *i*-umlaut were the short vowels, see §5.74, and hence /æː/ (nWS /eː/) was unchanged, for example, WS *dǣd* 'deed', *lǣċe* 'physician', *mǣre* 'famous', nWS *dēd*, etc. On the other hand, */æ/ was in all dialects sometimes umlauted to /e/ but sometimes remained as /æ/. Since the different developments appear to be at least in part phonologically conditioned, the different relevant environments are discussed separately below.

(1) When the intervening consonant or consonant group is a single or geminate consonant then */æ/ is regularly developed to /e/.[1] Typical examples include weak class 1 verbs such as: *herian* 'praise', *nerian* 'save', *werian* 'clothe', *weċġan* 'move', *wreþþan* 'support'; strong verbs with weak presents, such as *hebban* 'raise', *sċeþþan* 'injure'; *i*-stem nouns such as *heġe* 'hedge', *mere* 'lake', *mete*, *mett* 'meat'; *ja*-stem nouns, such as *here* 'army', *bedd* 'bed', *seċġ* 'man'; various other words, such as, *bet(e)ra* 'better'.

(2) When the intervening consonant group is non-geminate, then sometimes /æ/ remains, sometimes /e/ results.[2] Examples of words which regularly have /æ/ are: *æsċ* 'ash tree', see §5.37(4), *æspe* 'asp', *fæstan* 'make firm', *mæstan* 'feed on mast', *hæftan* 'bind', *næġlan* 'nail', *fæþman* 'embrace'. Examples of words which regularly have /e/ are: *eft* 'again', *rest* 'rest',[3] *eġle* 'troublesome', *esne* 'servant', *stefne*, *stemm* 'stem', *hrefn*, *hremm* 'raven'.[4] Some words vary between /æ/ and /e/, such as *æfnan*, *efnan* 'perform', *stæfnan*, *stefnan* 'regulate', and, possibly, nWS *ġæst*, *ġest* 'guest', but see §5.79n12. The explanation of this apparently sporadic development is controversial. Luick (1914–40: §189A2) suggests that */i/ may have had a stronger influence on */æ/ than */j/, but this does not even explain weak class 1 forms, such as *fæstan*, where */i/ and */j/ would vary within the paradigm. Campbell (1959: §194) suggests analogical influence from unumlauted forms, parallel to the phenomena discussed in §5.79, but this neither explains all instances nor accounts for the regularity with which /æ/ is often found in many words. For criticism of both suggestions see further Girvan (1931: §72). It is much more probable that */æ/ was more resistant to *i*-umlaut than the back vowels and that therefore an intervening non-geminate consonant group could partially inhibit the change.

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[1] Examples such as *færst* are explained by §5.79(2d) and examples such as *sæċċ*, *stæppan*, *hwættan* are explained by §5.79(2e). As previously mentioned, forms before geminate consonants could theoretically be taken here, but the regularity of /e/ in, for example, *bedd*, *wreþþan*, argues against this.

[2] In those dialects where second fronting occurs /e/ is always found, but its source is always ambiguous between the operation of *i*-umlaut and second fronting. In Kt /æ/ is also regularly raised to /e/, see §§5.188–91, and the parallel ambiguity is therefore found.

[3] But in Nbr both *rest* and *ræst* are found, so too the verb *resta, ræstan* 'rest'. Such forms are found very occasionally elsewhere, for example, ÆLet 4.195 *ræst*.

[4] See Campbell (1959: §193d,n4), and note also the very occasional *hræfn*.

5.81 Since */e/ before */i/ had already been raised to */i/ in Gmc, see §3.6, there could in OE be no examples of regularly developed */e/ in an umlauting environment. Analogical restoration of */e/, as suggested by Luick (1914–40: §190), Campbell (1959: §195), although possible, is not convincingly argued for, since it rests on a false parallel with analogical restoration of *a*. On the other hand, Angl *weorðes* 'thou becomest', etc. must show analogical introduction of *e*, since breaking of */i/ fails before a following /i/ in Angl, and there are no signs of combinative breaking, see further §§5.20, 29. The analogy is, therefore, evidenced. But if the analogy did take place there are never any signs of palatal diphthongization of restored */e/, see Girvan (1931: §71A3). Hence it is safest to assume that alternations such as *bere*, *birst* 'I bear, thou bearest' are due to the Gmc raising of */e/, although the possibility of *i*-umlaut of analogically restored */e/ cannot be excluded.

(c) I-*umlaut of diphthongs*

5.82 The *i*-umlaut of the diphthongs /æɑ, æ̆ɑ/ is in EWS regularly represented by ⟨ī̆e⟩, and in LWS by ⟨ī̆, ȳ̆⟩, both probably developments of earlier /iy, ıy̆/, see §§5.74, 164, and in nWS by ⟨ē̆⟩ (= /e(ː)/).[1] Typical examples are as follows: (1) from /æ̆ɑ/ < Gmc */au/: WS *bīcnan* 'beckon', *ċīġan* 'call', *ġeflȳman* 'drive away', *hȳran* 'hear', *gelȳfan* 'believe', *īġland* 'island', *nȳd* 'need', nWS *bēcnan*, etc.; (2) with */æɑ/ < */æː/ by breaking: WS *nīhst* 'next', see §5.23 for nWS *nēst*; (3) with /æɑ/ by palatal diphthongization: WS *ċȳse* 'cheese' < **ċīese*, see §5.72; (4) with /æ̆ɑ/ < */æ/ by breaking: WS *hlihhan* 'laugh', *niht* 'night', *ċirran* 'turn', *fyrd* 'army', *yldra* 'older', *ġewyldan* 'subdue', nWS *hlehhan*,[2] *neht*, *ċerran*, *ferd*,[3] Kt *eldra*, *ġeweldan*.[4]

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[1] But -*ē*- can be found in a small minority of EWS forms, for example, occasionally in *dēġle* 'secret', *ġēman* 'care for', *lēfan* 'allow', and a few other words. This is no doubt merely a sign of Merc influence on EWS. In early manuscripts of Bede ⟨ǣ⟩ spellings can be found, which are purely graphic, see Luick (1914–40: §194A2), and similar spellings in Ru1 merely show confusion of ⟨ǣ⟩ and ⟨ē⟩.

[2] Angl *hlæhas*, *hlæhað*, etc. lack *i*-umlaut, cf. WS *hleahtor* 'laughter'.

[3] For Angl forms with combinative breaking and *i*-umlaut see §5.79(2b).

[4] For Angl forms with failure of first fronting, see §5.79(2a). It is noticeable, however, that in those EWS texts which show signs of being (influenced by) an *a*-dialect, see §5.15, the *i*-umlaut is almost always of *ea*, for example, Chron(A)Hand(A), CP, Oros

ieldra. Instances of *æ* are to be found only in the personal name *Ælfred*, which was fossilized in its Merc form, and other instances of the name-element *Ælf-*, cf. EWS *ielf* 'elf'. Occasional examples with *-e-*, no doubt the Angl *i*-umlaut of *ea*, can be found, such as CP(C) 118.17 † *ġeweldan*, CP(H) 447.9 *welm* 'fountain', but it would seem clear that in these dialects /l/, when followed by /i, j/ in the next syllable, was not normally sufficiently velarized to prevent first fronting.

5.83 In WS only the *i*-umlaut of */io, ıŏ/ is regularly represented by EWS ⟨ī̆e⟩, LWS ⟨ī̆, ȳ̆⟩.[1] For the phonology of this change see §5.74 and n6. This holds for all cases, regardless of origin or length. Typical examples are as follows: (1) with */io/ < Gmc */iu/: *bȳt* 'he commands', *ċȳst* 'he chooses', *līhtan* 'lighten', *onsȳn* 'face', *ġestȳran* 'steer'; (2) with */io/ < */iu/ by diphthongization in Gmc, see §3.19, *fȳnd* 'enemies', *frȳnd* 'friends'; (3) with */io/ by breaking of */iː/ before /x/:[2] *lȳhtan* 'alleviate', *wrīhþ* 'he covers' and similarly other contracted verbs of strong class I; (4) with */ıŏ/ by breaking of */i/ before /r/ + consonant: *byrhto* 'brightness', *afyrran* 'drive out', *yrre* 'anger', *wyrsa* 'worse', *wyrð* 'he becomes'.[3] In nWS /io, ıŏ/, wherever they occur,[4] remain unaffected by *i*-umlaut, hence *bīot*, etc., except where later changes intervene, cf. Kt *-sīohð* 'he sees' against Ps(A) *ġesīð* by Anglian smoothing.[5]

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[1] For cases where /io/ appears to remain unchanged or become /eo/ see §5.84.

[2] EWS examples with ⟨īe⟩ are lacking in this type and must be inferred.

[3] Cf. here Angl *weorðes*, etc., discussed in §5.81.

[4] But note that /io, ıŏ/ do not always occur in all types in nWS. This is particularly the case where /ıŏ/ is due to breaking before /r/ + consonant, which in Angl fails before a following /i/, see §5.20.

[5] But in Ps(A) there are a considerable number of ⟨īe⟩ spellings reminiscent of EWS, notably frequent *onsīen* 'face', cf. Nbr *onsīon*. Björkman (1914) suggests that the form is disyllabic and is a reformation on the pattern of other words formed by a verbal stem + *-en* suffix, such as *lufen* 'joy', *selen* 'gift'. A similar disyllabic structure probably accounts for *ġesīe* 'I see', etc. and *fīenda, fiendum* 'enemies' gen.dat.pl. PsGl(A) 30.21 *ġeðīeda* 'languages' gen.pl. is probably an error.

5.84 Just as */e/ could not stand before a following */i,j/, see §5.81, so too */eo, ĕŏ/ could not regularly stand in the same position. As with */e/ there is no firm evidence to prove that an analogically developed */eo, ĕŏ/ has been subject to *i*-umlaut, but the behaviour of the other diphthongs suggests that if this did happen, then the *i*-umlaut of */eo, ĕŏ/ would be to EWS *ī̆e*, LWS *ī,ȳ*, and nWS *ī̆o*, these results being identical with the *i*-umlaut of */io, ıŏ/.[1] Hence EWS[2] *elðīediġ* 'foreign', *ġeþīedan* 'join', *stīeran* 'steer' alongside *elðēodiġ*, *ġeþēodan, stīoran* show *i*-umlaut of either */io/ or */eo/, and because of the interchangeability of the diphthongs the issue is not decidable. The forms *leornian* 'learn', *lēode* 'nation', *ġeþēode* 'language' never show *i*-umlaut, nor do *heordan* 'hards of flax', *ġereord* 'voice', *ġereord* 'food', where */ıŏ/ could never have occurred, see §§3.20–1. But many unumlauted forms are no doubt due to the analogy of related forms, such as *þēod, stēor, leornaþ, reord.*[3] In Nbr, the only dialect which regularly preserves the distinction between *ī̆o* and *ē̆o*, see §5.159, the forms of *leornia* are inconclusive, for Li prefers ⟨eo⟩ and Ru2 prefers ⟨io⟩, see Sievers (1900: 33–4). But the strong preference displayed in those texts for *ġeriord, riord*, etc., see Campbell (1959: §124n4), suggests that in this dialect */eŏ/ at least was *i*-umlauted to /ıŏ/.

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[1] The claim of Sievers (1900: 44–5), supported by Campbell (1959: §202), that */eo, eŏ/ was sometimes *i*-umlauted to /io, ıŏ/ in WS is phonologically improbable, given that the *i*-umlaut of */æɑ, æ̆ɑ/ was originally to the sounds represented by *ī̆e*. It is also unnecessary, since it merely substitutes for the analogical levelling of *i*-umlaut the analogical levelling of the Gmc raising of */e/ > */i/. We may therefore dispense with this special development, which Sievers called *Halb-Umlaut*.

[2] In LWS only *stȳran*, alongside infrequent *stēoran*, regularly shows *i*-umlaut in the texts of Ælfric and Wulfstan. For the other words ÆCHom I 506.10 has *ġeþȳde* 'joined', and the only example of umlauted *elþēodiġ* is the less reliable PsGl(E) 38.13 *elþīdiġ*.

[3] There is no obvious analogical base for *heordan*, but the form need never have been subject to *i*-umlaut, see §3.21n2.

(d) Summary

5.85 As was said in §5.74, *i*-umlaut is one of the most important and thoroughgoing sound changes in the history of OE. Consequently there are many areas where the change has important morphophonemic implications, and the most important of these are discussed below.

(1) *I*-umlaut distinguishes *ja*- and *jō*-stem nouns from the corresponding *a*-, *ō*-stems, so that all the former show umlauted stem vowels, such as *here* 'army', *seċġ* 'man', *cynn* 'race', *yrfe* 'inheritance', *synn* 'sin', *ȳþ* 'wave'.[1]
(2) Most *i*-stem nouns[2] should show *i*-umlaut throughout their paradigm, but if they have transferred to the *a*- or *ō*-declension before the time of *i*-umlaut then unumlauted forms will occur, hence *meaht* 'might' alongside *miht, stapas* 'steps' alongside *stepe* 'step', *gasta* 'guests' gen.pl., see §§5.79, 80.
(3) A number of *a*-stem nouns,[3] especially in early texts, apparently show an inst.sg. in *-i*, such as RuneThornhillC *on berġi* 'on a mound', but in all cases except the adverbial forms *ǣne* 'once', *hwene* 'a little' *i*-umlaut has been levelled away, at least to the extent that such examples are genuine, see n3 and §6.53 and n1.
(4) Masc. athematic nouns should show *i*-umlaut in the dat.sg. and the nom.ace.pl., for example, *mann* 'man', but *menu* dat.sg., nom.acc.pl. Similarly, fem. athematic nouns should show *i*-umlaut in the gen.dat.sg.

and nom.acc.pl., for example, *bōc* 'book' but *bēċ* gen.dat.sg., nom.acc.pl. But *i*-umlaut is often levelled away, for example, *bōċe* gen.sg., although in the case of WS *niht* 'night' especially it can be extended. The same variation is to be seen in the (masc.) *nd*-stems, for example, *frēond* 'friend', *frȳnd* 'friends'. Similarly the *r*-stem nouns such as *fæder* 'father' should show *i*-umlaut in the dat.sg., for example, *dēhter* 'daughter' dat.sg.; occasionally this is extended to the gen.sg., for example, Ps(A) *dōēhter*, and, rarely, to the plural, as in Ru1 *brōēþre* 'brothers'. But usual *fæder* dat.sg. shows levelling.

(5) A group of common adjectives show the comp. and sup. with *i*-umlaut, such as *lang* 'long', *lengra, lenġest*.

(6) In the 2,3sg.pr.ind., pa.subj. and pa.part. of strong verbs, the last only occasionally, see below, a following */i/ should cause *i*-umlaut of the root vowel where possible, but in fact the distribution of umlauted forms is different for each of the three categories. In the 2,3sg.pr.ind. *i*-umlaut should occur in regular verbs of classes II and VI, in many verbs of class VII, and in an additional few verbs such as *cuman* 'come'. Hence are found: *ċȳst* 'thou choosest' against *ċēose* 'I choose', *færst* 'thou goest' against *fare* 'I go', see §5.37(5), *filst* 'thou fallest' against *fealle* 'I fall', and many similar examples. But in Angl the *i*-umlaut is usually levelled away, for example, *ċēoses*, etc.[4] In the pa.subj. the *i*-umlaut is almost always levelled away, but it is evidenced in a few pret.-pres. verbs, most frequently in *sċyle* 'shall' pr.subj.sg. alongside *sċule*. In the pa.part. the ending **-in* was in competition with more frequent **-an*, but a few forms nevertheless show *i*-umlaut, such as EWS, LWS *cymen* 'come'.

(7) In classes V–VII a few verbs show formative */j/ before the endings of the present tense only, and hence are known as weak presents. Such verbs show all the characteristics of weak class 1 verbs in their present tense, including *i*-umlaut: typical examples include *biddan* 'ask',[5] *hebban* 'raise', *wēpan* 'weep'.

(8) Weak class 1 verbs formed their present tense with the formative */j/, and have */i/ as a connecting vowel in the preterite. Hence they show *i*-umlaut throughout the paradigm, for example, *fremman* ~ *fremede* 'perform', *dēman* ~ *dēmde* 'judge'. But a small group of weak class 1 verbs form their preterite without a connecting vowel, and thus show an alternation between an umlauted stem vowel in the present and an unumlauted stem vowel in the past, such as *cwellan* ~ *cwealde* 'kill', *þenċan* ~ *þōhte* 'think'. But, especially in WS, if the *i*-umlaut in such verbs is of a low vowel then the change is often analogically extended to the preterite, for example, *rehte* 'narrated' against *reahte*, cf. *reċċan, tǣhte* 'taught' against *tāhte*, cf. *tǣċan*. Such extension of *i*-umlaut occurs only if the verbal stem ends in

/x/. Since weak class 2 verbs have the formative */oːj/ in many parts of the present tense, */oː/ elsewhere, the stem vowel is always un-umlauted. Hence it might be thought that *i*-umlaut of the stem vowel was a diagnostic for weak class 1 against weak class 2, but the transfer in LWS of such weak class 1 verbs as *nerian* 'save' to weak class 2 shows that the diagnostic was by this time at least no longer synchronically valid. Note, of course, that */oː/ in */oːj/ was subject to *i*-umlaut, becoming */e/ in all dialects with later raising to */i/, see §6.52.

(9) Weak class 3 verbs should show *i*-umlaut in many parts of the paradigm, but the system is prone to much irregularity and analogy. For a full discussion of such forms see Campbell (1959: §§762–3), also §5.79(2d).

(10) There are many cases where *i*-umlaut does or should distinguish words which are derivationally related, see §5.79(2e). Of special interest are derived forms with a suffix containing /i/, of which the following types are the most important.

(a) Words with the suffixes *-iht*, *-in* (> *-en*), *-ing*, *-isċ* normally, and with the suffix *-inċel* always, do not show *i*-umlaut, hence *stāniht* 'stony', *lēaden* 'of lead', *earming* 'wretch', *folcisċ* 'popular', *hūsinċel* 'little house', cf. *stān*, *lēad*, *earm*, *folc*, *hūs*. Some of these forms appear alongside forms with *i*-umlaut, such as *stǣniht, yrming*, and some almost always show *i*-umlaut, such as *gylden* 'golden', *mennisċ* 'human'.[6] Unumlauted forms are either reformations on the base of the simplex, such as *stāniht*, or post-*i*-umlaut formations, such as *folcisċ*, see also §5.85(11).[7] The dual pers.pron. *ūsiċ* 'us two' has suffixal *-iċ*, but never shows *i*-umlaut, presumably on the analogy of the simple plural *ūs*.
(b) The suffix *-iġ* is developed from both */ij/ and */æj/, cf. EpGl 615 *hunaeġ-*, ErfGl 615 *huneġ-*, CorpGl 1214 *huniġ-*, and if it is from the latter then unumlauted forms appear, such as *bodiġ* 'body', *hāliġ* 'holy', *meahtiġ* 'mighty', *moniġ* 'many', *stāniġ* 'stony', *sundriġ* 'separate' (rare), *þurstiġ* 'thirsty'. Umlauted forms are frequent for *mihtiġ*, *syndriġ*, and are occasionally found in *mæniġ*, *meniġ*, but are otherwise rare or non-existent.[8]
(c) The suffixes *-nes(s)*, *-nis(s)* are variously derived from **-nassi*, **-nissi*,**-nussi* and hence sometimes show *i*-umlaut, sometimes not. Generally speaking LWS does not show *i*-umlaut, EWS occasionally does, and Angl regularly does, thus LWS *untrumnesse* 'weakness', EWS *untrumnesse*, *untrymnesse*, Ru2 *untrymnisse*, Nbr *untrymnis(s)e*.
(d) The suffixes *-el*, *-en*, *-er* are partly from Gmc */il, in, ir/, cf. §5.85(10a), and partly due to OE epenthesis, see §§6.38, 42. In the

former cases *i*-umlaut is regular, for example, *yfel* 'evil', *yldra* 'older', but in the latter epenthesis is too late to cause *i*-umlaut, for example, *æppel* 'apple', *ofen* 'oven', *æcer* 'acre'.

(e) The second elements of compounds normally contained suffixal */i/ and should therefore show *i*-umlaut, but umlauted and levelled forms often appear side by side, such as *ānīġe* 'one-eyed' beside *ānēaġe*, see too §5.76, *fiþerfēte* 'four-footed' beside *fiþerfōte*, *twībēte* 'doubly compensated' beside *twībōte*.

(11) If the first element of a compound is an *i*-stem, it might be expected that it should show *i*-umlaut, paralleling the simplex, but if the first syllable is long then */i/ is lost before the time of *i*-umlaut, hence *nēadþearf* 'necessity' beside more frequent *nȳdþearf*, *samcucu* (< **sāmi-* with early shortening) 'half-dead', CorpGl 799 *sċulthēta* 'bailiff' beside many compounds with first element *sċyld-*, JnGl(Li) 13.33 *uusċbearn* 'adopted son'. The same phenomenon is found less often with short syllables, but note frequent *ælþēodig* 'foreign' beside *elþēodiġ* and *hup(e)ban* 'hip-bone', *hup(e)seax* 'dagger' beside *hypeban*, *hypeseax*. The frequency of umlauted forms in all the above cases may also be due to reformations on the analogy of the simplex forms.[9]

It should be clear from the above that despite the fact that *i*-umlaut can be clearly observed in a great many morphophonemic alternations, it is nevertheless the case that it is frequently subject to morphological conditioning in the synchronic grammars of OE dialects. It is therefore difficult to suppose that phonological accounts of OE which assume a general synchronic rule of *i*-umlaut, such as Wagner (1969), Lass and Anderson (1975), can be fully justified.

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[1] Obviously many such nouns will also be distinguished by gemination, such as *cynn*, but, equally obviously, this is not a sufficient distinction, especially after degemination of final geminates, see §§7.80–1.

[2] But some *i*-stem nouns are originally *-es-*, *-os-*stems, and if these have a heavy stem syllable there is usually variation between umlauted and unumlauted forms, such as *ġebenn*, *ġebann* 'proclamation'. In the case of *ġecynd* 'nature', however, unumlauted forms are extremely rare.

[3] Three fem. *ō*-stem nouns show *-i* for the instr.sg. but without *i*-umlaut: RuthCr 3 *rōdi* 'cross', RuneAuzon 4 *-ċæstri* 'city', EpGl *ġitīungi* 'preparation', to which may be added EpGl, ErfGl 109 *meġsibbi* 'kinsman', a *jō*-stem. If *-i* is genuine, see §6.53n1, the *i*-umlaut must have been levelled away.

[4] But forms of *cuman* are especially resistant to the levelling of *i*-umlaut, for example, Ps(A) *cymes* 'thou comest', etc., and in Angl the umlauted forms are often extended.

[5] Technically, of course, the class V verbs have Gmc raising of */e/, see §3.6, rather than *i*-umlaut.

[6] *Mannisċum* dat.pl. occurs at HomM 5.110 and Solil 1 27.15.

5.86 The chronology of *i*-umlaut with respect to the major early sound changes such as breaking and palatal diphthongization has already been discussed, see §§5.33, 46, 72–3. For the relative chronology of *i*-umlaut and second fronting see §5.92. Since front vowels due to *i*-umlaut can then be subject to back umlaut because of suffix variation, see §§5.79ff., as in **æsil* > **esel* > *esol* > *eosol* ‘ass’, it is clear that *i*-umlaut is the earlier change, and the fact that *i*-umlaut is complete by the time of the earliest texts whereas both smoothing and back umlaut are not always carried through is further confirmation of the relative chronology of *i*-umlaut. More difficult is the relation of *i*-umlaut and palatalization. On the one hand, velar consonants are not palatalized before front vowels due to *i*-umlaut, hence *cēne* ‘bold’, *gēs* ‘geese’, *cǣġ* ‘key’, *gǣlan* ‘hinder’; on the other hand /j/ which is the result of palatalization of earlier */ɣ/, as in *dæġ* ‘day’, does not cause *i*-umlaut. The evidence clearly conflicts, and even if the further evidence of palatal diphthongization is taken into consideration, see §5.72, there is no immediately obvious solution, see Hogg (1979b). However, Colman (1986) has argued that syllable structure constraints, such that the umlauting and umlauted sounds must not be in the same syllable, would block *i*-umlaut in *dæġ* but not in *cǣġ*, and the argument is appealing. In this context it is probably safest to assume that the two changes of palatalization and *i*-umlaut were very closely related chronologically but with palatalization as the slightly earlier change. Yet the possibility of some chronological overlap cannot be entirely excluded.

VII Second fronting

5.87 In the West Mercian dialect typified by the language of the *Vespasian Psalter Gloss* (Ps(A)), ⟨e⟩ and ⟨æ⟩ are found where other dialects have ⟨æ⟩ and ⟨a⟩.[1] Hence we find *deġ*, *dægas* ‘day, days’ rather than usual *dæġ*, *dagas*. Since these changes bear a clear resemblance to the first fronting of Gmc **a* > *æ* they are together known as second fronting. The changes proceed regularly in all environments except that of a following velarized [ɫ],[2] where no change takes place, for example, *ældra* ‘older’ < **aldira* by *i*-umlaut, see §5.79n2, *hwalas* ‘whales’. It may also be supposed that a following /w/ would prevent second fronting, although there are no relevant

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[7] In Nbr the element *-wiht* is reduced to a suffix, appearing as *-iht*, and causes *i*-umlaut in *ǣniht* ‘anything’, *nǣniht* ‘nothing’, cf. WS *nānwiht*, which remains as a compound and hence does not show *i*-umlaut, see §5.74n2.

[8] Thus *hǣliġ* is restricted almost entirely to Ps(E), *stǣniġ* occurs three times in ÆCHom II 6 and in some texts in Bald’s *Leechbook*, and *þyrstiġ* is restricted to Nbr.

[9] It may also be the inverse of the failure of *i*-umlaut in many compound words, see §5.74n2.

examples, see Luick (1914–40: §179 and A1). In these circumstances the change can be seen to be prevented by an immediately following back sonorant. One continuing matter of controversy is whether the shift of /æ/ is to /e/ or to [ɛ], and if to the latter what the phonemic status of [ɛ] might be. The view that the shift was more or less directly to /e/ is held by d'Ardenne (1936: 181–6), Dobson (1972: lxxiii, n1), and Hogg (1977a: 72) amongst others; Zettersten (1965: 66–71) and Kristensson (1983, 1986a, 1987: 39–42), following and building upon Ekwall (1963), argue that [ɛ] developed as an allophone of /æ/, whilst Jack (1990) argues that /ɛ/ was a new phoneme which persisted throughout the OE period. The argument, which is based on the development of ME place-names, is by no means concluded, and the view presented here, but with alternatives mentioned where appropriate, is that the shift was of /æ/ > /e/. In those circumstances we may approximately characterize the process of second fronting as:

$$\begin{bmatrix} \text{V} \\ \langle -\text{back} \rangle_{a} \end{bmatrix} > \begin{bmatrix} -\text{back} \\ \langle -\text{low} \rangle_{b} \end{bmatrix} \; / \; \underline{\qquad\qquad} \; \begin{Bmatrix} [+\text{obst}] \\ [-\text{back}] \end{Bmatrix}$$

Condition: if a, then b.

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[1] In older works these changes are often asociated with Kentish raising of *ǣ̆*, see §§5.189–91, for example, Bülbring (1902: §91), Luick (1914–40: §§178–81), Girvan (1931: §87), Brunner (1965: §52). For arguments against this see Campbell (1959: §290), Ball (1962: 130), Hogg (1977a: 74–5).

[2] The precise conditions under which [ɫ] rather than [l] appears are difficult to determine. But the operation of first fronting, (§5.15), and breaking, (§§5.16n2, 5.22), suggest that [ɫ] < Gmc *[ɫ] remains velarized in the immediate environment of a back vowel, see further d'Ardenne (1936: 185), Hogg (1977a: 78), or when covered by a following consonant.

5.88 Earlier */æ/ is raised to /e/ with great regularity in Ps(A), typical examples being:[1] *bec* 'back', *feder* 'father',[2] *fet* 'vessel', *hefde* 'had', *seġde* 'said', *weter* 'water'; the pa.sg. of strong verbs of classes IV and V, such as *aber* 'I carried away', *sprec* 'he spoke', *wes* 'he was'; imp.sg. and pa.parts. of strong verbs of class VI, such as *fer* 'go!', *ġesċepen* 'created'. There is one example of raising before [l], namely Ps(A) 39.11 *hel* 'he concealed'.[3]

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[1] But in positions of weak stress the raising is not always carried through, hence *æt* 'at', *cwæð* 'he said', *ðæs, ðæt* forms of the dem.pron., *wæs* are found alongside *et*, etc. Other exceptions, such as Ps(A) *55.5 dæġ*, *2.9 fæt*, are of no significance.

[2] Alongside *feadur*, see §5.89.

[3] Examples of failure of raising before velarized [ɫ] are found with /æ/ as the *i*-umlaut of */ɑ/, for example, *ældra* 'older', see §5.87.

5.89 Earlier /ɑ/ is fronted to /æ/ with great regularity in Ps(A), typical examples being of cases where /ɑ/ is due to restoration of *a*:[1,2] *dræca* 'dragon', *hræċe* 'throat', *mægon* 'they may', cf. *meġ* 'he may', *wræca* 'vengeance' gen.pl., and various class 2 weak verbs: *cwæcian* 'quake', *plægian* 'play',[3] *wæcian* 'watch'. But except before velars this /æ/ is subject to back umlaut, see §5.106, and develops to /æɑ/ (⟨ea⟩). Hence we may infer from *featu* 'vessels', *feadur* 'father', *geatu* 'gates', *heafuc* 'hawk' etc. earlier **fætu*, **fædur*, **gætu*, **hæfuc* and many other forms.[4]

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[1] As with raising of /æ/, this fronting is not always carried through in positions of weak stress, hence regular *ah* 'but'. This may also be the explanation of the present tense forms of *habban* 'have', such as *habbað*, *hafast*, *hafað*, although as with forms of this verb in other dialects there may have been a desire to differentiate maximally *habban* and *hebban* 'raise'. Other exceptions, such as Ps(A) 73.13, 14 *draca*, 17.39 *magun*, are rare and of no significance.

[2] But note that /ɑ/ from Gmc **a* + nasal is in this dialect [ɔ] and not subject to second fronting, for example, *mon* 'man'. See further §5.5.

[3] Originally a class 3 verb, transferred to class 2.

[4] Examples of failure of fronting before velarized [ɫ] are: *ald* 'old', cf. *ældra*, *haldan* 'hold', *hwalas* 'whales', *wyrtwalan* 'roots', and forms of *galan* 'sing'.

5.90 Outside the dialect of Ps(A) the above changes are only occasionally seen, but the raising of /æ/ is more widespread than the fronting of /ɑ/. In the earliest Merc glossaries EpGl and the less reliable ErfGl both show /e/ < /æ/ only in 106 *sċeptloum* 'launching straps' dat.pl. and 558 *mer(e)* 'monster', and in addition each glossary has a small number of examples particular to itself, see Pheifer (1974: §38). CorpGl has rather more examples, the ratio of ⟨æ⟩: ⟨e⟩ being approximately 5:1, for discussion and examples see Kuhn (1939: 14–15), also Wynn (1956: §§1–3, 47–8). Ru1 has a minority of ⟨e⟩ spellings, as in *efter* 'after' (1×) against *æft(er)* (32×), *sprec* 'he spoke' alongside more frequent *spræc*, *cweþ* 'he spoke' (15×) against *cwæþ* (165×) (E. M. Brown, 1891: §1c). In the later OccGl 54 and LS 3 (Chad) ⟨e⟩ is the usual spelling, and unraised ⟨æ⟩ is found only in a minority of forms. The evidence of the later texts accords well with the evidence of the ME 'AB dialect', see d'Ardenne (1936), Dobson (1972), and we may therefore suppose that the dialect of Ru1 was marginal to the second fronting area. The language of the early glossaries is more ambiguous, since it may reflect either a dialectal or a chronological distinction, see §5.92. In the Merc glossaries the fronting of /ɑ/ is perhaps more common than the raising of /æ/ and forms with ⟨æ⟩ or ⟨ea⟩, see §5.89, are frequently found alongside forms with ⟨a⟩, see Pheifer (1974: §§46, 56), Kuhn (1939: 12–13) for details. But in the other texts mentioned above this fronting is never seen, except in occasional forms of no significance. Outside Merc both changes are quite absent.

5.91 The only morphological alternations which could arise as the result of second fronting would be due to the presence or absence of an immediately following velarized [ɫ] according to whether or not that liquid was followed by a back vowel. There are, however, no clear-cut examples of this, see Hogg (1977a: 80). Alternations such as *deġ* ~ *dægas*, *meġ* ~ *mægon* are, of course, due to restoration of *a*, not second fronting.

5.92 The relative chronology of second fronting has been a source of considerable disagreement. Thus d'Ardenne (1936) and Ball (1962) have argued for a date no later than restoration of *a*, Luick (1914–40: §181) and Campbell (1959: §253) suggest that it immediately preceded *i*-umlaut, so too Kristensson (1986a: 455–6), whilst Girvan (1931: §89A2) and Hogg (1977a) claim that it immediately followed *i*-umlaut, and Kuhn (1939) argues that it was roughly contemporaneous with back umlaut. ME evidence shows that where /æ/ is due to second fronting, as in *gætu* 'gates', *cæfertūn* 'hall', there is no palatalization of the initial velar, and hence second fronting must have followed palatalization. Further, since /æ/ by second fronting is subject to back umlaut where appropriate, see §5.89, it seems clear that second fronting must be the earlier change. These two points confine second fronting to a relative time almost contemporaneous with *i*-umlaut, and indeed Colman and Anderson (1983) argue that second fronting was merely a sub-part of the *i*-umlaut process. The argument for an earlier date rests upon the supposition that if second fronting were later than *i*-umlaut, then *ældra* < **aldira* might be expected to raise to ***eldra* (or, at least **⟨eldra⟩, for the phonemic interpretation is irrelevant), because the /l/ would by then be develarized. But if second fronting were the earlier change [ɫ] would still be velarized at the time of *i*-umlaut, second fronting would not take place, and *i*-umlaut would shift **aldira* > *ældra*. But there is no reason to suppose that [ɫ] would be develarized by *i*-umlaut, and the argument is thereby much weakened.[1] On the other hand, proponents of a later date for second fronting argue that if second fronting were early, then **bæddj-* would give **beddj-* and then that *i*-umlaut of */e/ would give ***bidd* rather than *bedd* 'bed'. The reverse chronology would clearly give *bedd*. This argument rests on two assumptions: firstly that */e/ can be subject to *i*-umlaut, see §§5.81, 84; secondly, that the second fronting of /æ/ was /e/ rather than /ɛ/. As such, this argument can be no stronger than the previous one. To the theoretical arguments we may add the fact that the Merc glossaries show only sporadic examples of second fronting, see §5.90. This could be due to the sound change not having been fully implemented at the time of the writing of the archetype (late seventh century). But even here an alternative argument from dialect differences is possible. The relative chronology of the raising of /æ/ and the fronting of /ɑ/ is equally difficult. The latter change cannot have preceded the former, since in that case the resulting /æ/ would have been raised. But the two changes may either have been simultaneous or the raising may have occurred first, thereby instituting a drag chain. The evidence of the various texts is either inconclusive or contradictory.[2,3]

[1] The often-quoted form *lǣran* 'teach' is irrelevant, since the stem vowel is long, and second fronting affects short vowels only.

[2] Thus the evidence of §5.90 suggests that in the dialect of the early Merc glossaries the changes were simultaneous, since they occur with similar frequency, but the absence of fronting of /ɑ/ in the other Merc texts, even those like LS 3 (Chad) which show regular raising of /æ/, suggests that the changes were quite separate, with the fronting of /ɑ/ the result of a drag chain which was dialectally very restricted.

[3] Dresher (1980) argues for a quite different view of second fronting whereby in essence the fronting of /ɑ/ was the consequence of the loss of a synchronic rule corresponding to restoration of *a*, cf. Ball (1962), but otherwise adopting the view of Kuhn (1939). But his argument rests crucially on the validity of the generative concept of rule loss, a discussion of which is outside the scope of this work.

VIII Anglian smoothing

5.93 In the Anglian dialects of OE,[1] at or shortly before the time of the earliest texts, see further §5.102, the short and long diphthongs /ɪŭ, iu, eŏ, eo, æ̆ɑ, æɑ/ of whatever source were monophthongized when followed, either immediately or with an intervening liquid, by the velar consonants /k, x, ɣ/. The monophthongizations are as follows: /ɪŭ, iu/ > /i, iː/, /eŏ, eo/ > /e, eː/, /æ̆ɑ/ > /æ/ with later raising to /e/ before liquids, see below and §5.98, /æɑ/ > /eː/, in some texts /æː/, see §5.99. Thus we find contrasts between, for example, Ps(A) *birhtu* 'brightness' (see, however, §5.94), *betwīh* 'between', *werc* 'work', *nēh* 'near' (< **nēoh* with breaking of */eː/ = æ$_1$), *mæht* 'might', *merg* 'marrow', *hēh* 'high', and WS *birhtu* (< EWS *bierhtu*), *betwīoh*, *weorc*, *nēah*, see above, *meaht*, *mearg*, *hēah*.[2] This process of monophthongization, termed 'smoothing' by Sweet (1888: 22), which was later translated into German as 'Ebnung' by Bülbring (1899a: 3),[3] has continually posed difficulties for OE scholars, and the explanation offered below can be no more than tentative. The major difficulty is well exemplified by the history of Angl *nēh*. For this word we can postulate proto-OE **nēh*, which by breaking is diphthongized to **nēoh*, see §5.23, since ⟨h⟩ represents /x/, but **nēoh* is then, by smoothing, monophthongized back to *nēh* before, apparently, the same consonant, cf. *nēowest* 'nearest' and other derived forms where /x/ is lenited and lost before smoothing. The changes of breaking and smoothing appear to be phonologically contradictory, and this has led some scholars, notably Brunner (1965: §119A1), to suppose that smoothing was a largely orthographic change, in other words that Angl scribes felt that it was unnecessary in the relevant forms to signal the diphthongal pronunciation. But in that context the regularity of the monophthongal spellings in Angl, and their corresponding failure to appear in non-Angl, together with the individual developments which some of the monophthongized forms undergo, would be remarkable. Yet it is clear that the consonants which caused smoothing had not necessarily been subject to palatalization and assibilation, both because of later evidence, such as ME *werk(e)* ‘work’, and because the conditions for palatalization and assibilation, see §§7.16, 33, were not present in the relevant forms. It is probable, therefore, that the most plausible explanation will be one that supposes neither that the smoothing consonants remained fully velar, nor that the change was purely orthographic, nor that palatalization and assibilation necessarily affected the consonants. Important examples are those such as *ġesihþ* ‘sight’ < **ġesiuxiþ*, which show that /x/ caused smoothing even when followed by /i/, and it is probable that in that environment there occurred a palatal fricative allophone of /x/, namely [ç], see Jordan (1974: §§196–8) for the ME evidence.[4] We may therefore suppose that the smoothing consonants were palatal allophones of the velar phonemes /x, k, ɣ/, that is, [ç, c, ɣ’],[5] orthographically ⟨h, c, g⟩. But the following difficulties present themselves. Firstly, the environment for the creation of fronted allophones is uncertain. It is most likely that the most favourable environment would be a preceding front vowel, but of course in smoothing environments the consonants are always preceded by diphthongs with a back second element. A solution to this would be to suppose that the second element of diphthongs had already been reduced to [ə]. However, this is chronologically suspect, see §§2.30, 43, 5.41, 46. In phonemic terms, at least, the relevant diphthongs must be analysed as containing a second element which is [+back], and that would suggest that the creation of palatal allophones was phonetically improbable. However, a prosodic explanation may be more helpful. In prosodic terms breaking can be accounted for as a sequence of front vowel + back consonant in which the latter is dominant and controls a leftwards *w*-prosody over the sequence, see §5.18, the primary realization of the prosody being the epenthesis of a nonsyllabic back vowel. It may be that by the time of smoothing the front vowel had become the dominant element in the sequence, over which it then exercised a rightwards *j*-prosody, the primary realization of which would be the palatal allophones of the velar consonants referred to above.[6] Secondly, there is the question of whether or not consonants which have been subject to palatalization and assibilation cause smoothing. Evidence that they apparently do not come from examples where /æː/, the *i*-umlaut of */ɑː/, is not raised to /eː/, as in smoothing, for example, *ǣht* ‘property’, *cǣġ* ‘key’, *rǣċan* ‘reach’, but such forms are capable of a rather different explanation, see §5.99.[7] Possible examples of smoothing before such consonants are extremely rare, but note EpGl, ErfGl 132, CorpGl 285 *berċ* ‘birch’, which might or might not show palatalized *ċ*, see Brunner (1965: §120A4).[8] The evidence is thus inconclusive. On the other hand there are three factors which help to confirm that smoothing took place before velars only if those velars had been fronted. Firstly, smoothing fails before /w/, which was never subject to fronting, for example, *trēow* ‘tree’, see further §§5.44–5 for this and similar forms and also for the simplified spellings ⟨trēu, trēw⟩. The explanation must be that smoothing does not take place before an unfronted velar. Secondly, smoothing does not take place before /lx, rx/ if fronting has been inhibited by an immediately following back vowel, hence Ps(A) *ðuerh* 'crooked' but *ðweoran* acc.sg.[9] Thirdly, the raising of /æ/ > /e/ before liquids, see above and §5.98, is scarcely explicable unless those liquids were develarized, cf. the influence of velarized liquids in breaking. And it is extremely unlikely that the liquids could be non-velar unless the following consonant were palatal(ized). Therefore we may conclude that Anglian smoothing was a process of monophthongization before a palatal or palatalized consonant (even if that consonant was merely an allophone of a velar consonant).[10] The change may therefore be approximately characterized as follows, where the stipulated condition refers to the subsequent raising of /æ/ > /e/ before liquids:

$$\begin{bmatrix}\text{V}\\ -\text{back}\\ \langle-\text{long}\rangle_{\text{a}}\end{bmatrix}\begin{bmatrix}\text{V}\\ -\text{syll}\end{bmatrix} > \begin{bmatrix}\text{V}\\ \langle-\text{low}\rangle_{\text{a}}\end{bmatrix}\varnothing \;/\; \underline{\qquad\qquad} \begin{bmatrix}+\text{cons}\\ -\text{obst}\\ +\text{cont}\end{bmatrix}_{\text{b}}\begin{bmatrix}\text{C}\\ -\text{ant}\\ -\text{cor}\end{bmatrix}$$

Condition: if a, then b is obligatory; elsewhere b is optional.

[1] In the earliest Kt charters, such as Ch 21, 23, 24, there are monophthongal spellings before *ht*, *hþ*, *hs*, as in the personal name-element *berht*, and similar forms are found in later charters, such as Ch 1200.5 *rehtlicast* 'most correct' alongside 14 *reohte* 'right' dat.sg. Girvan (1931: §90) suggests that Anglian smoothing penetrated the earliest Kt texts, but this could simply be due to Merc scribal influence, see further §5.99n7. The less regular examples of monophthongization in later texts are more probably due to the change known as palatal umlaut, see §5.115 and also n3 below.

[2] For LWS *hēh*, *nēh*, etc., see §§5.119–23.

[3] Prior to this the monophthongization had been referred to as 'sogenannter Palatalumlaut'. The change in terminology had the unfortunate repercussion that the conditioning consonants were considered to be velar, and the parallels with palatal umlaut proper were lost. Nevertheless it has to be stressed that palatal umlaut was dialectally, chronologically, and phonologically a distinct sound change, see further §§5.113ff.

[4] On apparent OE evidence from the runic inscription on the Ruthwell Cross, see §2.50 and the references therein.

[5] The degree of fronting involved in the smoothing consonants is uncertain, and therefore [ɣ'] is used to distinguish the relevant sound from /j/.

[6] If this is correct, then the formulaic characterization of smoothing given below is rather misleading, since it fails to demonstrate that the front element of the diphthong is the primary activator of the change.

[7] Nbr *ēġhwelċ* 'each', *ēġhwer* 'everywhere', *ēġhwona* 'from everywhere' are often cited as evidence that raising of /æː/ only took place before true velars. It is then suggested that in these cases /j/ became velar due to the following -*hw*- and thus that /æː/, the *i*-umlaut of earlier */ɑː/, was permitted to raise. If, as is argued in §5.99, /æː/ due to *i*-umlaut is never raised, these forms must have a different explanation; furthermore, it is by no means certain that /j/ would velarize to /ɣ/ in this position. On the other hand, it is entirely reasonable to suggest that these forms are due to the

development of Gmc */ai/ under low stress, see §5.7 and cf. Merc *ōēġhwelċ*, etc. In the Nbr cases we should assume that */ai/ developed to a sound intermediate between /ɑː/ and /oː/, and this umlauted to /eː/ perhaps through a stage *[ɛː]. Note that in these words a minority of Nbr forms show ⟨ǣ⟩.

[8] Another possible example, Ps(A) 90.14 *ġefriġu* 'I free', is to be explained differently, see §5.137 and Luick (1914–40: §247A1). See also §5.96n1.

[9] An alternative explanation, that in these environments [h] was lost before a back vowel earlier than smoothing but before a front vowel later than smoothing, see Campbell (1959: §231), is clearly unattractive and lacks textual support, see further §5.100(1).

[10] It is worth repeating that smoothing is here seen as the implementation of a *j*-prosody. Of the major handbooks, only Girvan (1931: §91) holds a similar view. Bülbring (1902: §§193–4) believes that smoothing took place before palatal and velar consonants alike. Luick (1914–40: §§238, 241) argues that 'true' smoothing took place only before fully velar consonants and that the shift of, for example, **ġesiuxiþ* > *ġesihþ* was a different change occurring before palatals, see Luick (1914–40: §192). Campbell (1959: §222) sees the change as occurring before back consonants, except in a few cases (essentially those of Luick, 1914–40: §192), where it must have occurred before palatals (Campbell, 1959: §233). Brunner (1965: §119A1) views the change as purely orthographic, although occurring only before velar consonants.

5.94 Since the diphthong */ɪŭ/ could only arise by the time of smoothing through breaking and since breaking of */i/ before */r/ + consonant probably failed before following */i/, it is most likely that forms such as *birhtu* 'brightness', *birċe* 'birch' never had a diphthong, see §5.20. Consequently the only examples of smoothing of */ɪŭ/ are due to breaking of */i/ before */x/, and in such cases */ɪŭ/ is regularly monophthongized to /i/.[1] Typical examples of the change in a variety of Angl texts are: EpGl, ErfGl 10, CorpGl 196 *frict(r)ung* 'divination', ErfGl 384, CorpGl 800 *siid* (= *sīð*) 'he sees', Ps(A) *pliht* 'danger', *ġesihð* 'sight', Ru1 *ġesihst* 'thou seest', LiGl *rihta* 'correct' and forms, *mixen* 'dunghill', DurRitGl *ġerihta* 'correct', Ru2 *ġesihþ* 'he sees', from earlier **friuhtrung*, **siuhiþ*, etc.

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[1] The fact that smoothing is most regular, even in the earliest texts, if the diphthong is */ɪŭ/ or */iu/, see the following paragraphs, is further evidence that the change was caused by a *j*-prosody. Exceptions to smoothing of */ɪŭ/ are sporadic and of little significance, such as MtGl(Ru1) 6.18 *ġeseōþ* on the analogy of other forms, similarly LkGl(Li, Ru2) *rehtanne* infl.inf. with ⟨e⟩ from *reht*.

5.95 Whether from Gmc */iu/ or Gmc */iː/ by breaking, the diphthong */iu/ is monophthongized to /iː/ before palatal consonants[1] with great regularity in all Angl texts.[2] Examples of the smoothing of Gmc */iu/ are: EpGl, ErfGl 12, CorpGl 112 *flīo* 'disease of the eye' (< **flīuhjō*), EpGl, ErfGl 97, CorpGl 185 *ġetīunge* 'order',[3] *līhtan* 'lighten' and related forms in Ps(A), LiGl, Ru1, and Ru2, MtGl(Ru1, Li) 23.37 *ċīken*, *ċicceno* 'chicken'. Examples of smoothing of */iu/ due to breaking include: *bitwīh* (all texts, in variant forms), CorpGl 2007 *þīxlum* 'axles' dat.pl., with variants in EpGl, ErfGl, Ru1 *līht* ‘light (in weight)’, Ps(A) *wī(ġ)bed* ‘altar’, *līhtan* ‘alleviate’ and forms, also in DurRitGl, LkGl (Li, Ru2) 11.5 *līh* ‘lend!’, and various forms of WS *wrēon* in all texts, but often with later hiatus resolution, see §§5.132ff., for example, Ps(A) *onwrīh* ‘uncover!’, *wrīð* ‘he covers’.

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[1] But examples with an intervening liquid are lacking.

[2] There are a few examples where ⟨ē⟩ rather than ⟨ī⟩ is found, but these are of no significance. LiGl, DurRitGl *bituēn* (5×) is probably an error for more frequent *bituīen* < **bitwīuxen* by smoothing, loss of /x/ and hiatus resolution; MtGl(Li) 11.30 *lēht* ‘light (in weight)’ is probably due to scribal confusion with *lēht* ‘illumination’, and only Beo 1032 *fēla* gen.pl. is unexplained. For an alternative view see Luick (1914–40: §236A2).

[3] This and the other forms quoted here without following *h* normally show lenition and loss of intervocalic */x/, see §§7.45–51.

5.96 With only a few exceptions in the earliest Merc texts, the diphthong */e͝o/ is regularly monophthongized to /e/ in all Angl texts before palatal consonants with or without an intervening liquid. Typical examples of the change are: EpGl, ErfGl 132, CorpGl 285 *berc* ‘birch’, see §5.93, EpGl, ErfGl, CorpGl *el(c)h* ‘elk’, EpGl, ErfGl 699, CorpGl 1450 *werċi* dat.sg.,[1] Ps(A) *feh* ‘money’, *ġefeht* ‘battle’, *were* ‘work’, Ru1 *feh*, *cneht* ‘servant’,[2] *werc*; LiGl, DurRitGl, Ru2 have similar forms, and examples in the eNbr texts are: CædH (M,L) 3 *uerc*, LRid 4 *ðerh* ‘through’, RuneAuzon 2 *-berig* ‘mountain’ (with later epenthesis, see §6.35), 6 *fegtaþ* ‘they fight’, and smoothing is also regularly evidenced in the proper names of Bede(M) and LVD. The early Merc glossaries have a very few examples of unsmoothed diphthongs, all of which have an intervening liquid, although that may be due to chance: EpGl 556 *-ġeweorc* ‘work’, EpGl, ErfGl 981 *sċeol(h)ēġi* ‘squinting’,[3] ErfGl 320 [*e*]*oritmon* ‘camel driver’, CorpGl 1672, 1771 *-biorg*, *-beorg* ‘protection’. Ru1 has a larger number of unsmoothed forms, examples being: *weorc* (2×)*,* *feoh* (3×), *beseoh* ‘look!’, but these may show no more than the WS influence which is obviously apparent in this text.

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[1] This form could be an instance of smoothing before palatalized and assibilated *ċ*, but alternatively the monophthong could have been extended from the nom.sg. See also §§6.50–4 on the status of the inflexional *-i*.

[2] Alongside *cnæht*, also *ġefæht* ‘battle’ and related forms, cf. similar sporadic examples in Nbr, such as LiGl, Ru2 *sæk* ‘see!’. There is no satisfactory explanation of these forms. Ru1 *wærc* (2×) could be due to confusion with *wærċ* ‘pain’.

[3] This form can scarcely be due to earlier loss of *h*, as implied by Campbell (1959: §227), see §§5.100(2), 102.

5.97 With a few exceptions in the earliest Merc texts, the diphthong */eo/ from whatever source is regularly monophthongized to /eː/ before palatal consonants (there being no instances with intervening liquids).[1] Examples of the smoothing of Gmc */eu/ are: CorpGl 1194 † *lēhtfaet* ‘lantern’, 1354 *flēge* ‘fly’, 556 *thēgh* ‘thigh’, Ps(A) *lēht* ‘illumination’, *flēgan* ‘fly’ acc.sg., Ru1 *lēht, mōnsēk* ‘lunatic’, with similar forms in the lNbr texts. Examples are lacking in the eNbr texts, but see below. Examples of the smoothing of */eo/ due to breaking are confined to *nēh* < **nēoh*, which is lacking in the early Merc glossaries, but found in all the other major Angl texts and also in the eNbr RuneAuzon 10 *unnēg* ‘distant’.[2] There are no smoothed forms in either EpGl or ErfGl, the relevant examples being 817 *-flīogae*, *flīogo* ‘fly’, ErfGl 295 *thēoh* ‘thigh’, to which may be added CorpGl 1832 *þēoh-*. This is more probably due to the early date of the texts than to influence from a southern, perhaps Kt, dialect. Ru1 has approximately as many unsmoothed as smoothed forms, hence *-sēoke*, *leoht*, cf. above, *flēoh* ‘flee!’, *atēoh* ‘draw away!’, *wēox* ‘it grew’. The imp. forms above are probably analogical, and other forms may be due to no more than scribal confusion.

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[1] In Ps(A) and Ru1 there are a number of examples with apparent smoothing to /iː/, all of which are strong class II verbs, such as Ps(A), Ru1 *līġende* ‘lying’, Ps(A) *flīgu* ‘I fly’, Ru1 *smīkende* ‘smoking’. They are probably due to analogy with the 2,3sg.pr.ind., see Luick (1964–40: §273A3).

[2] Ru1 has here a number of examples with *-ǣ-*, for example, *nǣhstu* ‘next’ fem. Compare here §5.96n1, although the present forms may more probably be ascribed to WS influence.

5.98 With a few exceptions in the earliest Merc texts, the diphthong */æ̆ɑ/ is regularly monophthongized to /æ/ before palatal consonants with or without an intervening liquid. But if /r/ immediately follows /æ/ there is then raising to /e/ and this raising is regular in all but the earliest Merc texts.[1] Examples of the smoothing of */æ̆ɑ/ directly before a palatal consonant are: EpGl 673, 674 *naechthraebn* ‘night-raven’, ErfGl 26 *nǽctægela* ‘nightingale’, CorpGl 1155 *laex* ‘salmon’, 625 *saex* ‘knife’, 1955 *waexit* ‘it grows’, EpGl, ErfGl 13, CorpGl 259 *aex* ‘axle’, EpGl, ErfGl 836 *aec(h)tath*, CorpGl 1696 *aehtað* ‘he considers’, EpGl, ErfGl 840 *aehrian, ægrihan*, CorpGl 1696 *aegnan* ‘chaff’ pl. (see further Pheifer, 1974: §50.3), Ru1 *sæh* ‘he saw’, *næht* ‘night’, *mæht* ‘might’, *waexaþ* ‘he grows’, Ps(A) *ġesaeh* ‘he saw’, *maehte* ‘he might’, *-saex* ‘knife’, *wæx* ‘wax’, CædH(M) *maecti* ‘powers’ acc.pl., and similar forms generally appear in the INbr texts, see, however, n2 below. In this environment the only important unsmoothed form is EpGl 555 *leax*, cf. *laex* above, and Ru1 *ġeseah* (6×, alongside more frequent *ġesæh*) is a further instance of WS influence on the scribe of this text.[2] When /r/ intervenes, the early Merc glossaries usually have /æ/ rather than /e/, the relevant examples being: EpGl, ErfGl 811, CorpGl 1616 *faerh* ‘pig’, CorpGl 1255, 1772 *haerg(a)* ‘temple’, EpGl, ErfGl 588, CorpGl 1249 *mærh* ‘marrow’, ErfGl 547 *fri[s]t-*, CorpGl 1108 *first-maerc* ‘interval’, CorpGl 1121 *ġemaercode* ‘it marked’, CorpGl 1827 *spærca* ‘spark’, ErfGl 410, CorpGl 930 *uaergrōd*, *waergrood* ‘gallows’, against CorpGl *bercae* ‘barking’ (see Hoad, 1978: 55), ErfGl 227, CorpGl 362 *mer[c]isae[r]n* ‘branding-iron’, CorpGl 1308 *merg* 'marrow'. A further form with /æ/ is LRid 13 *aerigfaerae* 'arrow flight', perhaps because of early epenthesis of /i/, although note that the epenthesis does not prevent the monophthongization. Otherwise /e/ is regular in Angl, for example, Ps(A) *herg* 'temple', Ru1 *ġemerkade* 'he marked', LiGl *berg* 'pig', Ru2 *mercung* 'marking', and many other forms. Unsmoothed forms in the earliest texts are: EpGl 652, CorpGl 1284 *bearug* 'pig',[3] CorpGl 153 *mearh* 'horse', EpGl 227, 547 *(-)mearc(-)* 'mark', EpGl 409 *uueargrōd*.

[1] Except for EpGl *fealga* 'harrows', there are no examples of this diphthong before /l/ since Gmc **a* did not front in such circumstances in Angl, see §5.15. *Fealga* must be a dialect borrowing, perhaps from Kt.

[2] In addition to the above forms, all Angl texts have a variety of forms with ⟨e⟩, which are to be otherwise explained. (1) Ru2 has eight forms of *wexan* 'grow', also *wexbredes* 'tablets', which are most probably due to raising before /x/ which has been further fronted by following /s/. This change appears to have been dialectally restricted, but it also occurs quite frequently in the proper names of other possibly SNbr texts such as Bede, LVD, see Bülbring (1899a: 6), Campbell (1959: §224) for examples. Outside SNbr such examples are no more than sporadic: PsGl(A) 96.5 *wex* 'wax' alongside *wæx*, ErfGl 555 *lex* 'salmon' alongside *laex*, and they may be no more than spelling errors. For apparently relevant forms in Ru1, see (4) below. (2) In all texts there are a number of words in which unumlauted and umlauted forms co-exist. The unumlauted forms have generally been quoted above, umlauted forms should show ⟨e⟩, as in *neht* 'night', *meht* 'power', *æhher* 'ear of corn'. (3) In all texts past forms of weak verbs *aweċċan* 'wake', *biðeċċan* 'cover', *reċċan* 'direct', which should have ⟨æ⟩, for example, *ræhte* 'he directed', more frequently take the vowel of the present, hence *rehte*, etc. (4) Ru1 has a comparatively high number of ⟨e⟩ spellings in: *ehtu* 'I consider', *exlan* 'shoulders', *ġeþehtunge* 'consultation', acc.sg., *wexan* 'grow', *wexeþ* 'it grows' (without *i*-umlaut, see §5.85(6)). There is no certain explanation for these forms, although scribal error is most probable, see also (1) above. (5) ErfGl 928 *brectme* 'noise' dat.sg. may be due to the frequent avoidance of ⟨æ⟩ by the continental scribe.

[3] This form is not due to back umlaut, as suggested by Campbell (1959: §360n2), for /u/ is due to later epenthesis. On the etymology of the word see Ball and Stiles (1983: §3.2.2 and App.) Compare also LiGl *berg*, above.

5.99 The diphthong */æɑ/ < Gmc */au/ is, with a number of exceptions, particularly in early texts, monophthongized before palatal consonants[1] to a sound represented by ⟨ǣ⟩ or ⟨ē⟩ according to text. ⟨ǣ⟩ spellings are restricted to the early Merc glossaries and related texts,[2] where they are in variation with ⟨ē⟩, and all other texts, even the earliest Nbr texts, use ⟨ē⟩ for the smoothed sound. It seems most probable that this reflects a dialectal at least as much as a chronological distinction, cf. Bülbring (1902: §193), Luick (1914–40: §238), Girvan (1931: §93), Campbell (1959: §225), for the complete absence of ⟨ǣ⟩ in eNbr and WMerc would be remarkable if the distinction were purely chronological. The dialectal distinction can be phonologically explained as follows. Since /æː/ < Gmc */ai/ by *i*-umlaut does not regularly develop to /eː/ even when followed by a palatal consonant, see §5.93 and n7, it can be assumed the sound produced by smoothing of */æɑ/ was slightly higher than /æː/ by *i*-umlaut but not as high as /eː/, that is, approximately [ɛː]. In most dialects this [ɛː] was assimilated to /eː/, but in the dialect of the early glossaries there was vacillation between /eː/ and /æː/. The distribution of ⟨ǣ⟩ and ⟨ē⟩ in the early glossaries is as follows: EpGl – 5× ⟨ǣ⟩, 3× ⟨ē⟩; ErfGl – 7× ⟨ǣ⟩, 8× ⟨ē⟩; CorpGl – 17× ⟨ǣ⟩, 9× ⟨ē⟩. Examples of ⟨ǣ⟩ include: (-)*lāēc* 'leek', *āēc* 'also', *-bāēg* 'ring' (not EpGl), and examples of ⟨ē⟩ include: *ēgan* 'eyes' (not ErfGl), *lēlodrae, lēlothrae* 'meadow-bur',[3] ErfGl *ġēcaes*, CorpGl *iēces* 'cuckoo'. In these glossaries there are also a fair number of unsmoothed forms: EpGl 9×, ErfGl 4×, CorpGl 2×, examples including: *lēactrogas* 'clusters' (a loanword), EpGl, ErfGl *andlēac* 'opened', EpGl *flēah* 'flea'.[4] In the other major Angl texts, however, smoothing to /eː/ is practically universal, with the exception of forms cited in n2.[5] Hence we find common Angl *ēc* 'also', *hēh* 'high', *bēg* 'ring', and many other forms.[6,7]

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[1] There are, of course, no examples with an intervening liquid, see §§5.25, 23.

[2] ⟨ǣ⟩ spellings which occur in other texts are to be otherwise explained. They occur most commonly as the result of shortening in weak-stressed positions, hence frequent *æc* 'also', *ðæh* 'although', which occur generally in Angl, although, by chance, Ps(A) has no examples of the former. For LiGl *flǣh* 'he flew' and a few other preterites of strong class II verbs, see §5.101(2).

[3] Presumably these examples have ⟨ē⟩ due to the influence of the simplex *lēh* (WS *lēah)* 'meadow', see §5.100n2.

[4] Note the contrast between the steady decline of unsmoothed forms and the increase of ⟨ǣ⟩ spellings, which confirms the non-chronological explanation of the latter. Note also that the late ninth-century Merc text Med 5.10, later than CorpGl, see Schaumann and Cameron (1977: 310–12), has ⟨ǣ⟩ only: 22, 28 *āēc* 'also', 11 *dāēg* 'it avails'.

[5] There are a few scattered unsmoothed spellings: *þēah* 'although' Ru1 2×, DurRitGl 1×; *ēage* 'eye' Ru1 3×; *ēac* 'also' LiGl 12× (including spellings such as ⟨ēæc⟩).

[6] Note especially the following eNbr forms: LRid 4 *hēh-* 'high', 11 *ðēh* 'although', and possibly RuneBewcastle 2 *siġbēcn* 'victory monument', see Page (1960, 1973: 148).

[7] In early Kt charters *ǣc* 'also' is frequent, and note further Ch 41.19 *Hǣgȳðe* place-name, 1510.24 *Bǣgmund* personal name. Despite Campbell (1959: §314) these seem to be clear examples of Merc scribal influence.

5.100 There are two principal exceptions to the above series of changes, which are discussed immediately below.

(1) In the sequence: diphthong + liquid + /x/, smoothing takes place only if /x/ is not immediately followed by a back vowel. Thus we find contrasts such as ErfGl 364a, CorpGl 627b *ēola* 'elk' against *elch*, see §5.96, PsGl(A) 68.15 *fēle* 'I may enter' against PsGl(A) 72.28 *ætfēalan* 'adhere', Ps(A) *ðwēoran, ðwēoru* 'perverse' infl. (4×) against *ðwerh* (2×). In such cases it is most probable that the following back vowel prevented /x/ from being fronted and that therefore the phonological

conditions for smoothing were not met. The chronological explanation of, for example, Luick (1914–40: §239) and, more firmly, Campbell (1959: §231), namely that /x/ was first weakened and lost before a back vowel, seems both ad hoc and implausible.

(2) Usually smoothing took place before /x/ was lost between sonorants, see §5.102 for further details, but if /x/ stood between a diphthong and a liquid or nasal,[1] then /x/ was lost too early for smoothing to take place and the diphthong remained.[2] Typical examples include: various compounds of *hēh* (WS *hēah*), such as *hēalecas* ‘skilled physicians’, *hēanis* ‘highness’, various compounds of *nēh* (WS *nēah*), such as *nēolǣċan* ‘approach’, *nēowest* ‘neighbourhood’, also *ēorod* ‘troop’ (< **eohrod*). However, smoothing of */iu, ıŭ/ > /iː, i/ always takes place even in these environments, for example, *wi(ġ)bed* ‘altar’, see §5.95, CorpGl *fiil* < **fīxl*, which further confirms the view that smoothing was earliest and most extensive if the first element was [+high].

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[1] Except in newly formed OE compounds, /x/ could not normally occur in such positions before a true obstruent. But in such compounds the same process is seen, hence *nēosian* ‘visit’, and many proper nouns in early texts, such as LVD † *Hēaburg*, † *Plēouald*.

[2] There are a number of examples where smoothing is indicated, no doubt due to the influence of the simplex, such as CorpGl 1960 *hāēhnisse*, PsGl(A) 11.9, 18.7 *hēhnisse*, 140.4 *ġenēhlǣcu* ‘I approach’, see too §5.99n3. But LRid 4 *hēhcræft* ‘skill’, EpGl, ErfGl 881, CorpGl 1761 *þuerhfyri* ‘difficulties’ may simply have preserved /x/.

5.101 There are no major morphophonological consequences of smoothing, but the following minor alternations should be noted.

(1) Since /x/ is protected from fronting when it is preceded by a liquid and followed by a back vowel, see §5.100(1), smoothed and unsmoothed forms may alternate in a few paradigms, according to whether or not /x/ has been fronted. Hence we find alternations such as *ðwerh*, *ðwēoran*.

(2) Wherever appropriate strong class II verbs should show smoothing of *-ēo-* in the present, *-ēa-* in the past sg., hence *flēgan* ‘fly’, *flēh* ‘he flew’. In Merc, however, *-ī-* is sometimes found in the present, see §5.97n1, and LiGl past tense forms such as *flāēh* are frequent. It is probable that in the latter case this is due to a wish to avoid homonymic clash between the smoothings of *-ēo-* and *-ēa-*, see §5.99, rather than to any analogical process.[1] In Nbr where *-ē-* occurs in the past sg. this may be extended to other past forms, such as *ġebrēcon* ‘they enjoyed’ for *ġebrucon*.

(3) In derivational morphology there are often alternations between smoothed and unsmoothed forms of the type *nēh* ‘near’ ~ *nēowest* ‘neighbourhood’, see §5.100(2).

[1] It is sometimes suggested, for example, in Campbell (1959: §225), Brunner (1965: §119A5), that *flāēh*, etc. have /æː/ on the analogy of the preterite of strong classes IV and V, such as *sæh* 'he saw'. But the analogy seems arbitrary and dubious, as indicated by Campbell (1959: §740).

5.102 The relative chronology of smoothing has been the subject of considerable debate, but certain points are clear. Firstly, smoothing must have been a later change than second fronting, for otherwise in WMerc /æ/ by smoothing of */æ̆ɑ/ would always have been raised to /e/, and that change only occurs if /r/ immediately follows, hence *ġesæh*, etc. Thus smoothing is also likely to be later than *i*-umlaut, which is not independently provable.[1] Secondly, it is clear from the examples above that smoothing was earlier than loss of *h* unless *h* was immediately followed by a consonant, cf. *sīþ* 'he sees' < **sixiþ* < **siuxiþ*, *hēan* 'high' wk.adj. < **hēxan* < **hēaxan* against *hēanis* 'highness' and the other forms cited in §5.100(2). Thirdly, a number of unsmoothed forms have been noted above, see §§5.96–9, for which the only reasonable explanation is that in the very earliest texts smoothing was not always indicated because the change was relatively recent. This is not the case with changes previously discussed. We may, therefore, conclude that smoothing was a later change than the others discussed earlier in this chapter. Furthermore, since the number of unsmoothed forms is greater for diphthongs with /æ(ː)/ as their first element, it may be that the sound change first affected high vowels, that is, that diphthongs with a nonlow first element were more sensitive to smoothing. More difficult, however, is the relative chronology of smoothing and back umlaut, for the latter see §§5.103ff. There are two plausible methods for explaining forms such as Angl *wegas* 'ways'. Firstly, if smoothing preceded back umlaut, it must be assumed that back umlaut failed in such environments, presumably because the intervening consonant, although phonemically velar, was phonetically palatal, see further §5.103. Secondly, if back umlaut were the earlier change, we may suppose the following development: **wegas* > *weogas* (back umlaut) > *wegas* (smoothing). Amongst the principal writers on the topic, Girvan (1931: §107) holds the first view, Bülbring (1902: §§202, 204, 208) and Campbell (1959: §247) the second, and Luick (1914–40: §235A3), whilst believing that back umlaut did not take place in cases such as *wegas*, suggests that the relative chronology of the two changes is undecidable. However, as demonstrated by Ball and Stiles (1983), see also Girvan (1931: §107), there are no texts which show back umlaut without also showing smoothing,[2] but there are several early texts, such as EpGl, RuneAuzon, CædH, which show smoothing but not back umlaut.[3] Hence there is strong textual evidence for accepting that smoothing was the earlier change. For full details of the chronology of back umlaut see §§5.103, 112.

[1] Alternations such as *næht* 'night' with smoothing of */æ̆ɑ/ and *neht* with *i*-umlaut of the same could arise whichever of the changes was the earlier.

[2] RuthCr 45 has *heafunæs* 'heaven' gen.sg., a clear example of back umlaut, but by chance there are no examples of smoothing in the text.

[3] LRid 10 *ġeolu* 'yellow' shows analogical transfer of the diphthong from inflected forms where breaking took place before /lw/, see §5.22 and n3, Ball and Stiles (1983: §4.2). For EpGl 652 *bearug* 'pig' see §5.98n3, and forms in the early Merc glossaries such as EpGl, ErfGl 902 *sċeadu* 'shadow' are best explained as due to palatal diphthongization of */ɑ/, see §5.69 and n3.

IX Back umlaut

5.103 At or about the time of the earliest texts the short front vowels /i/, /e/, /æ/ tended to diphthongize to the sounds represented by ⟨io, eo, ea⟩, that is, /ɪŏ/, /eŏ/, /æ̆ɑ/, when there was a back vowel in the following unstressed syllable.[1] This back vowel could either be /u/, in which case the diphthongization is known as *u*-umlaut, or /ɑ/, in which case it is known as *a*-umlaut.[2] Collectively the changes are known as back umlaut. Both the nature of the diphthongization and the fact that that diphthongization is caused by a following [+back] element demonstrate that the change is phonologically very similar to the earlier change of breaking, see §5.16.[3] Whilst *u*-umlaut is general in all dialects, in WS *a*-umlaut is largely restricted to the high vowel /i/, a restriction not found in the other dialects. Further, the nature of the intervening consonant(s) is crucial to the operation of the sound change, and this is a matter of considerable dialectal variation. With only a few scattered exceptions, see below, §5.107 for examples, there must be only one intervening consonant, and in WS the umlaut is regular only if that consonant is a labial, that is, /p/, /f/, /m/,[4] and labiovelar /w/, or one of the liquids /l/, /r/. In Kt, on the other hand, the umlaut appears to proceed regularly regardless of intervening consonant. For Angl there is no general agreement as to the precise conditions under which the change took place, see further below, but the overwhelming majority of Angl forms show no diphthongs in relevant environments if the intervening consonant is an original velar. These dialectal variations may be exemplified by the following instances of the *u*-umlaut of */i/ (ignoring various later developments irrelevant to the general issues): **sifun* > *siofon* 'seven'; **ġewritu* > WS *ġewritu*, nWS *ġewriotu* 'writings'; **regul* > WS, Angl *regol*, Kt *reogol* 'rule'. For the Angl cases with an intervening velar, the following alternative explanations have been offered: (1) back umlaut did take place before velars, but the diphthongs were subsequently monophthongized by Anglian smoothing, see §§5.93ff., that is, the development was of the type **regul* > **reogol* > *regol*, see Bülbring (1902: §§233–5), Campbell (1959: §247), Quirk and Wrenn (1957: §214); (2) regardless of the relative chronology of smoothing and back umlaut, the latter change did not take place before an intervening velar in Angl, that is, **regul* > *regol* directly, see Girvan (1931: §107), Luick (1914–40: §235A3), Ball and Stiles (1983: §6.1), although all these writers admit to certain exceptions. Since, however, smoothing seems certain to have been an earlier sound change than back umlaut, see §§5.102, 112 and references, the first of these explanations must be untenable. Nevertheless, the second explanation faces two difficulties. Firstly, there are occasional forms such as CorpGl 114 *heagoðorn* 'hawthorn', cf. 1897 *haeguðorn*, see further §5.106(1), which unambiguously show back umlaut.[5] Secondly, it is phonetically improbable that a velar consonant should inhibit back umlaut, consider here the similarities between this change and breaking, referred to above, and also the discussion of smoothing in §5.93. However, these difficulties may not be insuperable. As stated in §5.93, Anglian smoothing is most probably due to the exercise of a *j*-prosody stemming from a front vowel (the first element of a diphthong), which in most environments fronts a following velar consonant, thus causing a monophthongization of the diphthong. It would, therefore, be logical to assume that a front vowel which directly preceded a velar consonant would be even more likely to exercise such a fronting effect. Such velar fronting would have to occur at least at the time of smoothing and hence earlier than back umlaut.[6] Thus the development of **regul* would be to **reg'ul* by velar fronting and this form would not undergo back umlaut because of the palatal nature of the intervening consonant. It is entirely consistent with the general nature of back umlaut, with the failure of breaking before a palatalized consonant, see §5.16n2, and with the process of smoothing that back umlaut should be so inhibited.[7] The various Merc examples which unexpectedly show back umlaut in these contexts can also be systematically explained, see §§5.106(1), 112, below. A further complication is that when the front vowel is immediately preceded by /w/, then in a large number of cases the vowel is not diphthongized but is instead retracted to the corresponding back vowel, that is, /i, e, æ/ > /u, o, ɑ/, cf. the similar change with respect to breaking discussed in §§5.28–31. It is clear that the labiovelar nature of /w/ has an intensifying effect on back umlaut parallel to its effect on breaking. This change, which may be conveniently described as combinative back umlaut to distinguish it from 'simple' back umlaut, is most notable in WS, although examples are to be found in all dialects. Combinative back umlaut is discussed separately in §§5.108–10.[8] We are now, however, in a position more generally to characterize back umlaut as the epenthesis of a back nonsyllabic vowel after a short front vowel when there is a back vowel in the following syllable, provided that only a single consonant intervenes. In all dialects that consonant must not be a palatal and in WS only labials and liquids permit the change.[9] The change can therefore be characterized approximately as:

$$\emptyset > \begin{bmatrix}\text{V}\\ -\text{syll}\\ +\text{back}\\ \alpha\text{high}\end{bmatrix} / \begin{bmatrix}\text{V}\\ -\text{back}\\ \langle\alpha\text{hi}\rangle_{a}\end{bmatrix} \underline{\qquad\qquad} \begin{bmatrix} +\text{cons}\\ \left\{\begin{matrix} \left\{\begin{matrix}\left[\begin{bmatrix}+\text{ant}\\ -\text{cor}\end{bmatrix}\ \right]\\ \left\{\begin{matrix}[+\text{ant}]\\ [-\text{back}]\end{matrix}\right\}\end{matrix}\right\}\\ [+\text{voc}]\end{matrix}\right\}\end{bmatrix} \begin{bmatrix}\text{V}\\ +\text{back}\\ \langle+\text{high}\rangle_{b}\end{bmatrix}$$

Condition: if a = [-high], then b (WS only).

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[1] Since earlier */æ/ had retracted to /ɑ/ before a back vowel, see §§5.35–6, back umlaut of /æ/ could only occur regularly in those dialects where second fronting had occurred and produced new examples of /æ/ before a back vowel, see §§5.87–90. In no dialect does the change ever occur with long vowels.

[2] /u/ usually becomes /o/ sometime during the OE period and /ɑ/ is from earlier */o/, see for the latter §6.28. The chronology of *u*-lowering relative to back umlaut is uncertain, see §6.58. Although *o*-lowering is undoubtedly earlier than back umlaut, *a*-umlaut is often referred to as *o/a*-umlaut.

[3] See further Brosnahan (1953: §§124–33). The similarities are so close that they led Lass and Anderson (1975: 102–7) tentatively to suggest that the two rules might be collapsed together, see also Jones (1989: 78–81). However plausible this might be from the synchronic point of view (and the phonetic problems are difficult), the two changes are quite separate chronologically, see further §5.112.

[4] There are no examples of single medial /b/, see §2.53. It is sometimes suggested that if the intervening consonant is /m/, then the change does not always occur regularly, see §5.104n2.

[5] Campbell (1959: §247) speaks incorrectly of 'the complete absence in Anglian except in analogical forms of back umlaut before back consonants'. Compare here Campbell (1959: §207).

[6] Luick (1914–40: §709A1) appears to suggest that this change is probable and not necessarily a ME development. For the position in ME see Jordan (1974: §§88, 190).

[7] It follows from the above that velar fronting had not occurred in Kt at this stage. The position in WS is less clear, because of the much greater restrictions on back umlaut in that dialect.

[8] In the sections on simple back umlaut which follow I have excluded from the discussion all cases in WS in which /w/ immediately precedes. However, similar examples from nWS which show diphthongization rather than retraction are included for purposes of illustration wherever necessary. Such examples are briefly referred to in the sections on combinative back umlaut, together with the relevant examples from WS.

[9] Some scholars, notably Davidsen-Nielsen and Ørum (1978), have argued that the most general characteristic of back umlaut is that the intervening consonant is acoustically [+grave]. Attractive as this proposal is theoretically, it is noteworthy that there is no dialect in which all and only all the consonants permitting the change are [+grave].

(a) Simple back umlaut

5.104 Depending upon the quality of the intervening consonant, see §5.103, earlier */i/ is regularly both *u*-umlauted and *a*-umlauted in all dialects to /ıŏ/, initially represented by ⟨io⟩.[1] Details and examples of the development in each dialect are given immediately below.

(1) In WS although both *u*-umlaut and *a*-umlaut of */i/ are regular when the intervening consonant is a labial or a liquid, the umlaut is frequently levelled out from other parts of the paradigm, see further §5.111. Examples of *u*-umlaut which can generally be found in both EWS and LWS include:[2] *seolfor*, *sylfor* 'silver',[3] *seofon*, *syfon* 'seven', *eorðbeofung* 'earthquake';[4] examples of *a*-umlaut include: *teolað* 'he strives for', *leofað* 'he lives', *bīleofa* 'food', *cleopað* 'he calls'.[5] Alongside such *a*-umlauted forms, unumlauted forms, such as *clipað*, *tilað*, commonly exist,[6] and there are many examples, such as *clifu* 'cliffs', *drifon* 'they drove', where umlauted forms are not found, see further §5.111. On the other hand, in both EWS and LWS there are a number of cases where back umlaut is found even where the intervening consonant is not a labial or a liquid. Cases showing *u*-umlaut include: *neoþor* 'down', *seodo* 'custom', and *-teogoþa* '-tieth' (ordinal); cases showing *a*-umlaut include: *nioþemest* 'lowest' (< **niþa-*), *hionan* 'hence'.[7,8]

(2) In Merc the earliest glossaries, EpGl and ErfGl, show virtually no signs of back umlaut, the only possible example being the doubtful ErfGl 521 *unliuduuāc* 'intractable', cf. EpGl *unlidouuāc*, CorpGl 1079 *unlioþuwāc*.[9] Examples of unumlauted forms include: EpGl, ErfGl *bitulum* 'beetle', *ġinath* 'he yawns', *hnitu* 'nit', EpGl *sifun-* 'seven', *ymbdritung* 'deliberation'. On the other hand in CorpGl umlauted forms outnumber unumlauted forms by about 2: 1 (Kuhn, 1939: 11), examples including *ġeonath*, *ymbðriodung*, *nioðanweard* 'downwards', *glioda* 'kite', *tioludun* 'they strove after'. In Ps(A) back umlaut is extremely regular, examples of *u*-umlaut being: *sċeopu* 'ships', *seofen* 'seven', *liomu* 'limbs', *teolung* 'zeal', *seolfor* 'silver', *ġewreotum* 'writings', and various past plurals of strong verbs class I, such as *abiodun* 'they awaited', *fleotun* 'they disputed', *areosun* 'they rose up'.[10] Examples of *a*-umlaut are: *reopað* 'they reap', *leofað* 'he lives', *nioman* 'take', *heara* 'their' (with ⟨ea⟩ for ⟨eo⟩, see §5.45), *nioðerra* 'lower'. The forms in Ru1 are similar, for example, *ġewriotu*, *heora*, but the diphthong is frequently analogically levelled, for example, *ġewritu*, *arisan*.[11]

(3) The position in Nbr is similar to that in Merc. Hence the very earliest texts show no signs of back umlaut, as in RuneAuzon 11 *sitaþ* 'they sit', and the earliest examples are LVD † *Frioðu-*, alongside equally frequent † *Friðu-*. In the later Nbr texts the forms are similar to those of Merc, for example, *arioson*, *hiora*, but there are a few cases where the umlaut is levelled in the past plurals of strong class I verbs, notably in *fordrifon* 'they drove out', *ġehrinon* 'they touched'.[12]

(4) Kt forms in the early charters which show back umlaut are: Ch 1482 *bewiotiġe* 'look after' pr.subj., *ġeornliocar* 'more earnestly', *niomanne* 'take' infl.inf., Ch 1510 *ġewriota* 'writings', and the Surrey Ch 1508 *ġewriotu*.[13] In the later OccGl 49 the only certain example is *seoððan* 'after' with umlaut despite an intervening geminate, see §5.107.[14] Otherwise all examples are without umlaut: *ġewita* 'witness', *ficol* 'fickle', *ofsticoð* 'he stabs', *witodliċe* 'indeed', *cwidas* 'sayings'. These forms are very probably due to WS influence.

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[1] By a later development, see §§5.155–61, *io* > *eo* in WS, Merc, and, to some extent, in Kt also.

[2] The preterites of relevant weak class 2 verbs, such as *cleopode* 'he called', also properly belong here in WS, but the forms could at least in theory be influenced by the *a*-umlauted forms in the present tense. Also to be noted is the form *mioloc* 'milk', which might be regarded as the *u*-umlaut of */i/, but more probably shows inverted *io* for *eo*, cf. §3.29. It is unclear whether *liomu* 'limbs' shows back umlaut beyond its usual limits in WS, cf. *niman* where there is never any umlaut. However it is most probable that *niman* simply shows usual levelling, see §5.111(4), and hence that back umlaut does occur with intervening /m/ in WS, see §5.103 and n4.

[3] For discussion of this word see Campbell (1959: §213n1).

[4] Only found in Or (7×). In LWS the form is *eorþbifung*, without umlaut.

[5] An additional example is *tiola, teola* 'well' < **tila*, which has the vowel of *til*, alongside *tela*.

[6] But the only examples in Ælfric and Wulfstan of *bīleofa* without umlaut are ÆLS 323, ÆLet 2.51 *bīġlyfan*. Hom(U)46 has *bīlyfan* (2×) and similar forms can be found in other late texts.

[7] These forms are not solely or necessarily Merc, for *-teogoþa* is a non-Angl form, and in any case they can occur in LWS texts which rarely show Merc influence. Similarly it is unlikely that they are Kt. They must either derive from some WS sub-dialect, see Luick (1914–40: §224A1), or show occasional extension of back umlaut to instances with an intervening dental, even in WS. *Hweogol* 'wheel', occurring sporadically in late and mixed texts, may be a Kt form.

[8] In EWS, especially CP(H), there are a number of cases where ⟨ie⟩ appears rather than ⟨io⟩ or levelled ⟨i⟩, such as *tielian* 'strive for' and forms, *cliepiað* 'they call', *ġewrietum* 'writings', *behienan* 'this side of'. But the appearance of such forms before dental consonants and, in most cases, their relative infrequency, suggests that they are in fact inverted spellings for ⟨i⟩, see §5.163n1, and not a type of back umlaut. For another view see Campbell (1959: §300b).

[9] In addition there is combinative back umlaut in EpGl 430 *uudu-* 'wood', see further §5.109.

[10] Ps(A) also shows examples where the diphthong has been extended to past plurals where an original velar immediately follows: *bisweocun* 'they deceived', *asteogun* (2×) 'they descended'.

[11] Nevertheless Ru1 has *wreogan* (2×), *wriogan* 'covered', with *io* before an original velar, cf. n10.

[12] But *-flioton* (2×) 'they disputed' does not show such levelling in Nbr.

[13] It is possible that to these should be added Ch 331 *stiogole* 'stile', indicated as 'Saxon-Kentish' by Sweet (1885: 438). But the form could be from a sub-dialect of WS, see n7. *Bewiotiġe* has a diphthong extended from ind. forms with a following back vowel.

[14] Much less certain is OccGl 49.6 *clepað* 'he calls', where the form could be an error for *cleopað*, so Campbell (1959: §216) after Williams (1905: 44). It is, however, just possible that it is a Kt form of LWS *clypað*.

5.105 Depending upon the quality of the intervening consonant, see §5.103, earlier */e/ is regularly *u*-umlauted in all dialects, but especially nWS, and *a*-umlauted in nWS dialects to /ĕŏ/, usually represented by ⟨eo⟩. Details and examples of the development in each dialect are given below.

(1) In WS the back umlaut of */e/ > /ĕŏ/ is relatively infrequent even with an intervening labial or liquid, for *a*-umlaut is almost entirely absent, for example, *fela* 'many', *nefa* 'nephew', *beran* 'bear',[1] and although *u*-umlaut is phonologically regular, it is subject to considerable analogical levelling. Examples of the *u*-umlaut of */e/ include: *heofon* 'heaven', *eofor* 'bear', *beofor* 'beaver', *heorot* 'hart',[2] and, since these words may exist with a front unstressed vowel, such as *hefen*, *befer*, see §§6.64 and n1, undiphthongized forms also occur, thus *hefon*, *befor, herot*. On the other hand, inflected forms such as *speru* 'spears', *nefum* 'nephews' dat.pl. never occur with *u*-umlaut, see further §5.111(1). There are a number of cases where /e/ as the product of *i*-umlaut is then subject to back umlaut, either because of suffix variation, cf. *heofon*, etc. above, or because of morphological transfer of verbs from weak class 1 to weak class 2, especially in LWS. Examples of the former are: *eosol* 'ass' alongside *esol* < Lat **asilus*, *meowle* 'maiden' < **mawilo*, *eowe* 'ewe' alongside *ewe* < **awi*, see §5.14n1. Examples of the latter are:[3] *streowode* 'he strewed', ÆAbusWarn *freomiġen*, also BedeHead 3.14.20 *freomiġende* 'perform', beside much more frequent *fremian* and forms.[4]

(2) In the earliest Merc glosses the back umlaut of /e/ is extremely rare, the only certain example being ErfGl 1039 *trīfoedur* 'three-cornered', with *oe* for *eo*, cf. CorpGl 2052 *ðrīfeoðor*.[5] In CorpGl the position is similar to that for the back umlaut of */i/, see §5.104(2), examples being: *eofor*, *feotor* 'fetter', *feotod* 'fetched'. In Ps(A) back umlaut is extensive. Examples of *u*-umlaut include: *eofur* 'bear', *ġeofu* 'gift', *oferġeotul* 'forgetful', *-cweodulnisse* 'utterance'. Examples of *a*-umlaut are especially frequent in the present tense forms of strong verb classes IV and V, thus *beorað* 'they carry', *aġeofað* 'they give', *eotað* 'they eat', *betreodað* 'they tread', and similar forms occur with *u*-umlaut in 1sg.pr.ind., such as *eotu* 'I eat', etc. In these verb classes forms with back umlaut are analogically extended to verbs with following /k/, such as *spreocu*, *spreocað* 'speak', and similarly for forms of *wreocu* 'I avenge', *-breocu* 'I break', including in all cases pres.part. forms, such as *spreocende*.[6] The forms of Ru1 are similar to those of Ps(A)

except that there are a few undiphthongized forms, such as MtGl(Ru1) 18.19 *hefonum*, *setulas* 'seats', both due to competing forms with a front unstressed vowel, and cases, especially in strong verb classes IV and V, where the diphthong has been analogically levelled, for example, all forms of *etan* 'eat', *wesan* 'be', some forms of *beran*, *-ġetan*.[7]

(3) The earliest Nbr texts do not show back umlaut, hence CædH(M) *metudæs* 'creator' gen.sg., CædH(DP) *hefun-* 'heaven', and the earliest example appears to be RuthCr *heafunæs* gen.sg.[8] The forms of the lNbr texts closely resemble those of Ru1, subject to the Nbr developments of *eo* and *ea,* see §5.44. However, whilst the SNbr Ru2 has, like Ru1, see n7, analogical extension of the umlaut in strong class V verbs with following /k/, thus *spreocað*, *spreaca*, such extension is entirely absent in all lNNbr texts.

(4) In the early Kt charters examples of back umlaut of /e/ are common, as in *-ġeofan* 'give', *feola* 'many', *beġeotan* 'obtain', and also, with an intervening velar, *reogol* 'rule', *forespreoca* 'advocate'. The later OccGl 49 has a mixture of forms, umlauted examples being: 175 *ġiofa* 'gift', 230 *onġiotað* 'understand!', 464 *neofan* 'nephews', together with a number with preceding *w-*, such as 21 *weogas* 'ways', 320 *weolan* 'riches', and 861 *ġeweolugad* 'enriched' and related forms; unumlauted examples include: 366 *ġefol* 'gracious', 304 *setol* 'seat', which may be due to suffix variation, 73 *etað* 'they eat', 1179 *forberan* 'tolerate', which may show levelling, and 52 *tela* 'well'.

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[1] LWS frequently has *feala* 'many', less often *feola*, alongside more usual *fela* (thus Ælfric has *feala* 14×, but no examples of *feola)*, and there are occasional examples of *teala* 'well'. The forms are not clearly explicable, see Brunner (1965: §110A5) for discussion and references. Chron(A) 530 *feala* may well be a scribal error, see Sprockel (1965: §7.8.4). CP(H) has a number of forms where *o* has been added either contemporaneously or at a later date, for discussion and references see Kim (1977: 181): 333.6, 391.26 *fe*[*o*]*la*, 449.6 *he*[*o*]*lan* 'conceal', 449.5 *he*[*o*]*lað*, 85.8 *he*[*o*]*fenliċ* 'heavenly', and, after *w*, 331.6, 333.4 *we*[*o*]*lan* 'riches', 391.8 *we*[*o*]*lena.*

[2] *Ġeolu* 'yellow', which occurs in early texts as LRid 10 *ġoelu* with *oe* for *eo*, EpGl, ErfGl 1064 *ġe*(*h*)*olu* alongside more frequent *ġelu*, CorpGl *ġeolu* (2×) alongside *ġelu* (2×), and *meolu* 'meal', more often *melu*, are to be explained under §5.22n3, see further Ball and Stiles (1983: 16–18), and should not be taken as examples of back umlaut. A parallel explanation holds for *sme*(*o*)*ru* 'fat', *te*(*o*)*ru* 'tar', see §5.22n6.

[3] Although such forms occur in both the present and the past, they presumably originate in the past, where *u*-umlaut could occur. Another form often cited is HyGl 3.41.1 *underwreoþod* 'supported', perhaps nWS in origin.

[4] A number of words are usually held to demonstrate that in WS *ie* < **e* by palatal diphthongization could then be back umlauted to *io*, later *eo*, cf. Bülbring (1902: §253), Luick (1914–40: §227), Campbell (1959: §220), Girvan (1931: §105), Brunner (1965: §111A8). The usually cited forms are: *ġeolu* 'yellow', *ġeoloca* 'yolk', *ġeolstr* 'pus', *ġiofol*, *ġeoful* 'generous', *ġeofu* 'gift', *onġiotan* 'understand', *ċeole* (< *ċeolan*) 'throat', *ċeorian* 'mutter'. But all except the last are otherwise explained. For *ġeolu*, and hence *ġeoloca*, *ġeolstr*, see n2 above; *ġeofu*, *ġeofol* do not occur in EWS except

CP 321.13 *ġiofol* nor in Ælfric or Wulfstan and thus are presumably from another dialect without palatal diphthongization; the same is true of *ċeole* and forms; CPLetWærf 26 *onġiotan* is also an isolated form, and in any case showing umlaut in a position abnormal for WS. But *ċeorian* is common in WS and not easily explicable.

[5] Other possible examples in EpGl, ErfGl are: *ġeolu*, see above, n2; EpGl 573, ErfGl 573a *laxhe olor*, *laxe olor* 'scale, balance', against EpGl, ErfGl 607, 988 *helor* and CorpGl 1169a *laxhe holor*, 1177, 2041 *heolor*, which suggest that 573(a) and CorpGl 1169a are corruptions; ErfGl *beoso* 'crimson', cf. EpGl 411 *baeso*, CorpGl 877 *beosu*, which might show either an archaic spelling of the back umlaut of *æ*, see §5.45n1, or the back umlaut of /e/ from *i*-umlaut, see Wynn (1956: §47n6).

[6] The analogy is extended to the derived noun *ġespreocu* 'talks' (6×) alongside *ġesprecu* (1×). Ps(A) also has *weagas* 'ways' (3×), *weogum* (1×) alongside usual *wegas*, where the umlauted forms may show Kt influence, see Ball (1970: 465) and §5.45n4.

[7] On the other hand Ru1 has analogical extension of the umlaut similar to that found in Ps(A) in *spreocan*, *spreocaþ* beside *sprecan*, *sprecaþ*.

[8] A number of proper names in LVD, Bede show back umlaut, but these are of uncertain value. LRid *ġoelu* is not relevant here, see n2 above.

5.106 Because of the operation of earlier sound changes, principally the restoration of *a* (§§5.35ff.), *æ* could usually only come to stand before a back vowel in the following syllable and hence be subject to back umlaut in those dialect areas where second fronting (§§5.87ff.) had taken place. Such dialects are discussed under (1) below, and other examples of the back umlaut of /æ/ are discussed under (2) below.

(1) In the dialect of Ps(A) examples of the back umlaut of /æ/ due to second fronting are frequent and regular before all consonants except the original velars /k/ and /ɣ/.[1] Hence examples of *u*-umlaut include: *earun* 'they are', *fearu* 'I go', *heafuces* 'hawk' gen.sg., *feasum* 'fringes' dat.pl., *featu* 'vessels', *ġeatu* 'gates, *feadur* 'father' gen.sg. Examples of *a*-umlaut include: *spearað* 'he spares', *ġehleadað* 'you (pl.) draw', *ġedeafenað* 'is fitting' and, especially, all forms of weak class 2 verbs even where no back vowel follows and where the umlaut is analogically extended, hence *ġedeafien* 'they may consent' (with ⟨d⟩ for ⟨ð⟩), *gleadie* 'he may gladden', see further §5.111(2). The earliest Merc glossaries, even when they show second fronting, are generally too early to show back umlaut, and there are no certain examples of the change in EpGl, ErfGl.[2] In CorpGl, however, whenever /æ/ results from second fronting this is then subject to back umlaut, so that the contrast is between forms with *ea* and forms with *a*.[3] Typical examples are: *-fearu* 'journey', *geabuli* 'tribute', *cleadur* 'rattle', *geaduling* 'companion' (< **gaduling* without *i*-umlaut, cf. §5.76), against *-faru*, *gaful-* and many other forms. It is notable that in CorpGl back umlaut occurs even when the intervening consonant is an original velar, thus *heago-* 'enclosure', *reagufinċ* 'finch', *weagat* 'he wags', *onseacan* 'deny', *-ðeaca* 'roof'.[4] These examples are to be explained by postulating either that in the

dialect of CorpGl velar fronting occurred before second fronting or that the product of second fronting in this dialect was insufficiendy front to cause velar fronting, see Kuhn (1939: 13–14), also §5.103. Of the other Merc texts Ru1 has only 16.17 *ondsweorode* 'he answered', with *eo* for *ea*, see §5.45, 21.33 *heage* 'enclosure' (= *heagan* acc.sg.),[5] and probably 14.6 *pleagade* 'he played', cf. pl. *plagadun*, although alternatively back umlaut of /e/ might be assumed, cf. WS *plegode*. In late Merc OccGl 54 has 37.670 *hælwearum* 'inhabitants of hell' dat.pl. and Chad has *earun, andswearede* and *eadusan* 'adze', but the occurrences are rare, see Vleeskruyer (1953: 109–10).

(2) Outside these Merc texts /æ/ could only occur in conditions of back umlaut when subject to early shortening, the only example there being Nbr *leassa* 'less' < *læssa*, or with suffix variation. The most important example of the latter is WS *ealu* 'ale' < **ælu*, where /æ/ is due to *i*-umlaut in inflected **aluþi*,[6] whilst Nbr has a number of possible but doubtful cases.[7,8]

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[1] Since second fronting fails before [ɫ], see §5.87, and since Gmc **a* + nasal is not subject to second fronting, there can be no regular examples of back umlaut of */æ/ with an intervening *l* or a nasal. Hence forms such as *bealu* 'bale' are due to breaking in inflected forms, see §5.22n3.

[2] EpGl 736 *uuicingsċeadan* 'pirate', 853 *sċeaba* 'plane', 902 *sċeadu* 'shade' are often regarded as relevant examples, for instance, Luick (1914–40: §§231A3, 253), Campbell (1959: §207), Brunner (1965: §96.2dA7). Although the forms are ambiguous, they are probably better regarded as examples of the so-called palatal diphthongization of /ɑ/, see §§5.69–70, as suggested by Girvan (1931: §100A3), Wynn (1956: §47.4), and Ball and Stiles (1983: §§3.2.2, 5), see further references therein. Since NNbr has frequent examples of such palatal diphthongization, SNbr has some examples, and the 'NMerc' Ru1 shows sporadic instances, the assumption can be justified dialectally. EpGl 715 *hreacca* is dubious and for EpGl 652 *bearug* 'barrow-pig' see Ball and Stiles (1983: §3.2.2 and App.).

[3] The single exception is 873 *-læppan* 'skirts' with an intervening geminate.

[4] Note also LorGl2.34 *heagospinnum* 'cheeks' dat.pl., 62, 51 *lundleogan, -leogum* 'kidneys', the latter with *eo* for *ea*.

[5] Not to be taken here is MtGl(Ru) 21.5 *tēoma*, an adjective from *tēam* 'team'. And Ch 204 *hiobbanne* 'have' infl.inf. is of uncertain value, being influenced by following *siollanne*.

[6] So explained by Weyhe (1906: 78) and preferable to the assumption of Angl origin, as in Quirk and Wrenn (1957: §214).

[7] Mainly poetical *cearu*, although note CP 302.9 *cearu*, is not to be taken as a further example, *pace* Campbell (1959: §208). The form is presumably Merc alongside WS *caru*, see further Brunner (1965: §108.5A4) and n8 below. For Nbr forms such as *ġefeastnadon*, see Campbell (1959: §208n6).

[8] The majority of other cases must be regarded as due to Merc influence, particularly predominant in eKt: Ch 1482, 1510 *ðeafie* 'I consent', Ch 1482 *teapera* 'tapers' gen.pl., Ch 41, 1436 *earan* 'they are', alongside, for example, Ch 1197 *ġeðafie*. Both Kt and Nbr also have a number of names with back umlaut which may be attributed to their Merc origin. The most reliable WS example is Chron(A) 449 *ġeleaþade* 'invited',

again probably due to Merc influence. ÆGl 8.35 *meatte* ‘mat’ < Lat *matta* in WGmc shows failure of restoration of *a* before a geminate and then back umlaut in the same environment, whilst ÆCHom I.29.430.2 *ġeaflum* ‘forks’ dat.pl. is from *ġeafel*, not *gafol*, see OED *yelve*. Forms with back umlaut of /æ/ are a common feature of poetic texts, such as Beo *beadu, eafora, eafoð, eatol, heafo, ġeheaðerod, heaþu*, see Cameron et al. (1981: 43–4).

5.107 In nWS there are a number of examples of back umlaut where more than one consonant intervenes, most, but not all, examples involving geminates. In Nbr the relevant examples are: Ru2 *ionna, ionnað* ‘womb’, Ru2, DurRitGl *bionna* ‘within’, LiGl *soðða* ‘after’ < **sioðða*, see §5.208, *sealla* ‘give’ and forms, with back umlaut of /e/ < */æ/ by *i*-umlaut, possibly also in Ru2, see Lindelöf (1901: §87), and, where the intervening consonants are non-geminate, LiGl *bihionda, bihianda* ‘behind’ (also Ru2 *bihionda*), *ġioster-* ‘yesterday’, with *io* for *eo*, cf. Ru2 *ġestor-*. In Merc the relevant examples are Ps(A) *seoðan*, with orthographic simplification of the geminate, and Ru1 *seoþþan*. It is noteworthy, however, that there are a number of examples in Ps(A) where back umlaut of /æ/ (due to second fronting) takes place even with an intervening geminate or consonant cluster. Examples of the former type are: *leappan* ‘skirt’, *hneappade* ‘he slept’ and related forms, *eappultun* ‘apple orchard’, *westernsċeattum* ‘usury’ dat.pl. and related forms, *gneat* ‘gnat’ (from pl. forms); examples of the latter are: *eascan* ‘ashes’, alongside *escan* from nom.sg., *gongeweafran* ‘spiders’. In Kt we find OccGl 49 *seoððan*, Ch 1482 *sioððan*, against Ch 1195, 1200 *siððan*. Before groups Ch 1188 has *siondan*, Ch 1508 *seondan* ‘they are’ beside more frequent unumlauted forms. The position in WS is more obscure. Only two words are at issue,[1] *siððan* ‘after’ and *sindon* ‘they are’, these being the usual EWS forms beside rare *sieððan*, *siendon*, most probably with ⟨ie⟩ for ⟨i⟩, see §5.165. On the other hand the usual forms in LWS are *syþþan, syndon*, and in the latter case at least back umlaut is unlikely to have occurred.[2]

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[1] But there are the unexplained EWS forms Met 2.4 *ġeocsa*, Lch II (1) 18.1.1 *ġeoxa* ‘sobbing, ?hiccough’, cf. EpGl, ErfGl 958 *iesca*, where the normal development is **ġesca* > **ġiesca* > *ġihsa*, with palatal diphthongization, see Weyhe (1908: 171).

[2] This is because, as has already been noted, see §5.104(1) and also §5.111 below, back umlaut is regularly levelled in WS. The ⟨y⟩ spellings could have two sources: (1) *i* > *y* in LWS, see §5.173; (2) **ie* > *y* in LWS, see §5.167. If the former is the case, then clearly back umlaut is uninvolved. If the latter is the case, then there would have to have been a special development of **io* > **ie* > *y*. For further discussion see §5.167.

(b) Combinative back umlaut

5.108 As has already been stated in 5.103, when a short front vowel[1] is immediately preceded by /w/, then this /w/ frequently has the effect of retracting that vowel to the corresponding back vowel, rather than mere diphthongization. It is important to note that this change is often lexically restricted and even in the case of individual lexemes diphthongized and undiphthongized forms may stand alongside retracted forms.

[1] It would appear, however, that /æ/ is never so affected, although this may simply be because combinative back umlaut is relatively infrequent in the dialect of Ps(A), see further below.

5.109 In all dialects the combinative back umlaut of /i/ > /u/ appears to be restricted to examples of *u*-umlaut and possible examples of combinative *a*-umlaut are to be otherwise explained.[1] The details of the changes in each dialect are listed below. It is especially important to note that although in most dialects the change is quite restricted in its operation, as indicated in §5.108, in WS the change is extremely widespread. This, of course, is in marked contrast to the dialect situation with respect to the operation of simple back umlaut, which is least frequent in WS.

(1) The most noteworthy feature of the operation of combinative *u*-umlaut in WS, apart from its regularity, see above, is that it usually takes place regardless of the nature of the intervening consonant, and therefore examples of the change can be found with an intervening dental, such as *wudu* 'wood', *wuduwe* 'widow', (*w*)*uton* 'let us', *cwudu* 'cud', *swutol* 'evident', and even with an intervening velar, such as *wucu* 'week', *swugian* 'be silent'. Frequently diphthongized or undiphthongized forms are found alongside the above, hence *weoduwe*, *widuwe*; *cweodu*; *sweotol*; *wicu*. Where no retracted forms are found, the preceding /w/ may still permit diphthongization beyond the normal limits for the dialect, as in *wioton* 'they know' alongside *witon* and *swiocol* 'treacherous' alongside *swicol*.[2]

(2) In the early Merc texts combinative back umlaut is extremely rare, the only examples being EpGl 430, LdGl 245 *uudu-*, alongside many examples with /i/. By the time of CorpGl, however, as with simple back umlaut, the change is much more frequent, for example, *uudu-*, *cudu* 'cud'. In Ps(A), in contrast, the change is infrequent, occurring only in *wudu*, contrasting with *weotun* 'they know' (see also n1), *sweotulliċe* 'manifestly' and even undiphthongized *widwe* 'widow'. Ru1 has *wutan* 'know' pr.pl. alongside equally frequent forms such as *witan* and also *wutu* 'let us'. Note also MtGl(Ru1) 23.14 *widuwana* 'widows' gen.pl.

(3) The earliest Nbr texts show the first examples of combinative back umlaut in Bede(M) *derauuda* 'deer wood' dat.sg. (< *wudu*), RuneAuzon *wudu*. The significance of these forms is uncertain, see further §5.112.

In the later Nbr texts the principal forms are: *wuton* 'let us', *wuton* 'they know' and hence various other forms of the same verb, *wutodliċe* 'indeed', *wudu* 'wood'. But diphthongized forms can also occur, such as *wiotodliċe*, and some forms only so occur, such as Ru2 *ġiswi-opornisse* 'cunningness' acc.sg. Note also that *widwe* 'widow' is the regular form.

(4) The only example of such umlaut in Kt is CollGl 49.204 *wuton* 'let us'. Note that Ch 328, 1195 have *wiada, weoda* 'wood' where usually analogy from the nom.sg., in which combinative *u*-umlaut might have been expected, takes place. The implication is that such umlaut was rare in the dialect, although see Gabrielson (1912: §§396, 287) for ME evidence which might suggest that combinative back umlaut occurred in Kt also.

[1] Combinative *a*-umlaut of /i/ is held to occur in the following Nbr forms: *wuta* 'know', *wuta* 'wise man', where it is most probable that *-u-* has been transferred from *wuton* 'they know'. Similarly frequent WS *wuda*, also in Ps(A), has the vowel of *wudu*. CP *ġewuta* 'witness' (2×) and *wutan* 'wise men' (1×) may have the same source as the Nbr forms above, but are scarcely of significance.

[2] Other forms, such as *swicon* 'they deserted', which never show either retraction or diphthongization, are to be explained as examples of analogical levelling, see further §5.111.

5.110 In all dialects the combinative back umlaut of /e/ > /o/ is even more restricted than the parallel umlaut of /i/. In general only a few words are affected, the principal of which are as follows. In WS we find *worold* 'world', *swoloð* 'heat', and, with an intervening cluster, *swostor* 'sister'.[1] All such forms occur alongside other forms with *-eo-*, such as *weorold*, etc. The only other dialect with such forms is NNbr, where LiGl, DurRitGl have *woruld* and LiGl has *worud* 'troop' (= WS *weorod, werod*). In all Nbr texts, however, there is apparently combinative *a*-umlaut in *wosa* 'be' (= WS *wesan*), and LiGl has *cwoða* 'say' alongside *cweoða, cwoeða*, and other forms. The extent to which these latter examples are to be connected with back umlaut must be uncertain.[2,3]

[1] Both *swostor* and *sweostor* presuppose earlier **swestur*, in contrast to Angl *swester, suoester* from earlier **swester*. The WS form is unusual and unexplained.

[2] Luick (1914–40: §222.2) sees *wosa* as due to monophthongization of **weosa* in weak-stressed environments, which claims no more than an unexplained special development. On the other hand, the development cannot be through rounding after /w/, that is, **wesa* > **woesa* >? *wosa*, since Ru2 almost totally lacks that change, see §5.178 and Lindelöf (1901: §93). The definitive status of the observed changes cannot therefore be ascertained.

[3] In NNbr combinative back umlaut is unknown outside the above examples and the usual development must have been diphthongization to *eo*, that is, **weras* > *weoras* 'men', with later unrounding to *wearas*, see §5.44(2). But there is then a later

development giving *wæras, waras*, etc., for which see §5.179. There is no need to assume that such forms entirely escaped back umlaut, as Campbell (1959: §210.2n4) seems to imply.

(c) Summary

5.111 The operation of back umlaut has important morphological consequences in four areas: (1) various noun (and hence adjective) inflections; (2) the weak class 2 conjugation; (3) the preterite plurals of some strong verbs; (4) the present tense of other strong verbs. These are discussed separately below.

(1) Back umlaut can cause morphological alternation in two different types of noun inflection. The first type is where the nom.sg. does not suffer umlaut, but (usually in the plural) some other case has a following back vowel which potentially causes umlaut. The most common examples involve the *a*-decl. neut. nom.pl. *-u* and dat.pl. *-um* (all declensions). In WS in such cases the umlaut is regularly levelled, for example, *clifu, clifum*. In the Angl dialects, on the other hand, the change is levelled only in a minority of instances. Indeed, in Ps(A) only unlevelled forms are found, such as *sċeopu, sċeopum* 'ships'. In Ru1 forms such as *ġewriotu* 'writings' are only slightly less frequent than levelled *ġewritu*. In Nbr texts unlevelled forms greatly outnumber levelled forms. The limited evidence of Kt suggests a fairly equal alternation between phonological and analogical forms. The second type is where the nom. sg. ends in inflectional *-u*, which is absent elsewhere in the paradigm. In fact the only frequent example is *wudu* 'wood', in which case combinative back umlaut is extended to forms with following *a*, see §5.109. However, since this word shows combinative back umlaut even in those (Merc) dialects where the change is rare, the change may be a special property of the lexeme.

(2) In verbs belonging to weak class 2 a back vowel directly follows the stem in 2 and 3sg. pr.ind., where it is /ɑ/, and the preterite, where it is /u/ in WS and /ɑ/ in nWS, see further §3.34. Elsewhere an *i*-umlauted vowel follows the stem. Hence the paradigm is liable to considerable analogical restructuring. In EWS there is both levelling and extension, so that alongside regular *clipian, cleopode*, forms of 'call', one can also find both *cleopian* and *clipode*. In LWS it is more usual for the umlauted forms to be levelled out, although the other variations remain in a minority of cases. In Merc Ps(A) extends the back umlaut to all forms, hence *cleopiu* 'I call' etc., and the same appears to be true for the other Angl texts written after the time of the change. In Kt no such extension takes place.

(3) In verbs of strong class I it might be expected that a preterite plural form such as *drifon* 'they drove' should undergo back umlaut. In WS, however, undiphthongized forms are always found. In the Ps(A) dialect of Merc, in contrast, not only are all such forms diphthongized,[1] but forms with an intervening velar, which would not usually show the change, do so, see §5.104n10 for examples. In Ru1 levelling is frequent, but see §5.104n11, and in Nbr there are both levelled and unlevelled forms.

(4) Similarly, in strong classes IV and V back umlaut should appear in the pr.inf., 1sg. pr.ind., and the pr.pl.ind.,[2] but in fact the position is broadly parallel to that immediately above, except that the absence of umlauted forms in the standard WS texts is to be ascribed to the failure of /e/ to be *a*-umlauted. CollGl 49.73 *etað* 'they eat', 1179 *forberan* 'tolerate' suggest that in Kt, where such umlaut could take place, see §5.105(4), the umlaut was usually levelled.

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[1] With the exception of *edwiton* (3×) 'they reproached'.

[2] At least in those texts where the inflectional ending was usually *-u* and not *-e*.

5.112 Since the evidence of the earliest Angl texts shows that back umlaut is there only occasionally represented, whereas in texts such as CorpGl and Ps(A), as well as the lNbr texts, back umlaut is fully regular, it is safe to assume that back umlaut only began to be implemented at or about the time of the earliest texts. Furthermore, the chronology of back umlaut relative to sound changes normally considered to be prehistoric is easily established. For example, where forms undergo palatal diphthongization they do not undergo back umlaut, hence examples such as *ġyfu* 'gift', see further §5.105n4. There are also frequent examples where an *i*-umlauted vowel comes to stand before a back vowel, due to variation in a suffixal vowel. Examples such as *eosol* 'ass' < Lat *asilus* are given in 5.105(1). Furthermore, back umlaut must be later than second fronting, since the /æ/ produced by second fronting is regularly umlauted, see here §5.106(1). The only area of difficulty is the relationship between smoothing and back umlaut. However, the discussion in §§5.102 and 103 shows that smoothing must have been the earlier change. In the case of back umlaut itself, although there is no justification for asserting different chronologies for *u*-umlaut and *a*-umlaut, it is often asserted that combinative back umlaut was earlier than simple back umlaut, see, for example, Luick (1914–40: §233), Girvan (1931: §104A2), Brunner (1965: §114A7), Campbell (1959: §218). The evidence for this rests on the early attestation of *wudu* in Bede(M) and EpGl, texts which do not usually show simple back umlaut.[1,2] But since *wudu* can appear even in a text such as Ps(A) which otherwise does not show the change, see §5.109(2), it is dangerous to draw any general conclusions from what may well be a lexical idiosyncrasy. There can therefore be no reason to suppose that combinative back umlaut was generally earlier than simple back umlaut or even, as Stiles (1983) speculates, that that was the case for Nbr but not Merc.[3]

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[1] But note ErfGl 521 *unliuduuāc*, discussed in §5.104(2). For eNbr see §§5.104(3), 105n8.

[2] The often-cited EpGl, ErfGl 557 *uulluc* 'wrapper', not 'whelk', is cognate with OHG *wulluh* and not therefore a relevant example, see Stiles (1983) and references therein.

[3] In WS and Kt the situation is otherwise indeterminate, but it may be supposed that the same situation obtained in all OE dialects.

X Palatal umlaut

5.113 In WS dialects especially, and to varying and lesser extents in the other dialects, the short diphthongs *io, eo* were monophthongized and raised to /i/ when directly followed by /x/ plus dental consonant, that is, /t, θ, s/. The evidence of Kt, where, unlike WS, /e/ could occur in these environments as a result of the *i*-umlaut of */æ̆ɑ/, for example, **hleahið* > *hlehð* 'he laughs', see §5.82, shows that /e/ was similarly raised to /i/. The only restriction on the change appears to have been that the consonant cluster must not have been followed by a back vowel. Typical examples in WS are *cneoht* > *cniht* 'boy', **ġeweoht* > *ġewiht* 'weight', cf. *cneohtas* 'boys', and similar forms are found in Kt together with examples such as **hlehð* > *hlihð* 'he laughs'. Such a sound change has clear similarities to Anglian smoothing, see §5.93. In the Angl dialects, however, examples of this change, usually known as palatal umlaut, are only to be found in relatively late Merc texts, such as Ru1 *neht* > *niht* 'night'. The similarities to Anglian smoothing, and the fact that this sound change involves not only monophthongization but also raising, strongly implies that in these positions the originally velar /x/ had, as in Anglian smoothing, developed a palatal allophone, that is, [ç], see Luick (1914–40: §684, esp. A2). Further evidence that the consonant group had palatalized comes from the failure of the change to take place when a back vowel followed, as in *cneohtas* above. We may therefore suppose that the change took place before [ç] + dental consonant.[1] The internal structure of the changes as they affect the short diphthongs is rather less certain in several respects. Firstly, it is unclear whether in WS /ıŏ/ and /eŏ/ had already merged by the time of palatal umlaut, see further §§5.118, 161. Secondly, it is uncertain whether /ıŏ, eŏ/ directly shifted to /i/, or whether they first monophthongized and then /e/ < /eŏ/ shifted to /i/, or whether /ıŏ, eŏ/ first shifted to the sound represented by ⟨ie⟩, probably either /ıy̆/ or /ıə̆/, see §2.36. A choice between the first two alternatives may be impossible, given the absence of intermediate ⟨e⟩

spellings in WS, such as ***cneht* for *cniht*. On the other hand, Kt has examples suggesting that monophthongization did indeed occur first, see §5.115. The evidence for an intermediate stage *ie* principally consists of occasional spellings with ⟨ie⟩, such as CP 287.10 *cnieht*, CP 341.18 *wriexle* 'change', but these appear to be the only such spellings of relevant forms in the major EWS texts and presumably are merely instances of ⟨ie⟩ for ⟨i⟩, see §5.165.[2] It is therefore best to assume that palatal umlaut consisted firstly of monophthongization (where appropriate) of the short diphthongs /ı͝o, e͝o/ and then raising of /e/ to /i/ before a palatalized consonant everywhere. The change may be approximately characterized as follows, where for convenience the two shifts are taken together:

$$\begin{bmatrix} \text{V} \\ -\text{back} \\ -\text{long} \\ -\text{low} \end{bmatrix} \begin{bmatrix} \text{V} \\ -\text{syll} \end{bmatrix} \Rightarrow [+\text{high}]\ \varnothing\ /\ \underline{\qquad\qquad} \begin{bmatrix} \text{C} \\ +\text{high} \\ -\text{back} \\ +\text{cont} \end{bmatrix} \begin{bmatrix} \text{C} \\ +\text{cor} \end{bmatrix} \left\{ \begin{matrix} \begin{bmatrix} \text{V} \\ -\text{back} \end{bmatrix} \\ \varnothing \end{matrix} \right\}$$

[1] An apparent exception to this is consistent *meox, miox* 'dung'. The failure of palatal umlaut here is best explained by presupposing the shift of /xs/ > /ks/, see §7.6, 9. It must therefore be supposed that this shift takes place earlier when word-final than when word-internal, cf. *mixen* 'dung-heap', *wrixl* 'change' and see Luick (1914–40: §271A1). There is no need to invoke an analogical explanation as in Campbell (1959: §305), and very rare *mix* (1× only apparently), *myx* are of no significance.

[2] EWS *siex* 'six' and related forms are not relevant here, for LWS has both *six* and, less frequently, *syx*. But *syx* could not have developed from /i/ due to palatal umlaut, see Luick (1914–40: §271A1,3), Brunner (1965: §122A2), also §5.167, and, for the contrary view, Sprockel (1965: 32). Further, by n1 above, *seox* should not undergo palatal umlaut. *Siex* must therefore be due to *i*-umlaut of /e͝o/ in inflected forms, but given LWS *six* we may have to suppose that there were competing forms in EWS with and without palatal umlaut, see also §5.115. Nor can EWS *ryht* 'right' < *reoht* be relevant here, since /y/ is most probably due to rounding of /i/ after /r/, see §5.170 and references, cf. Campbell (1959: §305n2) for another view.

5.114 In EWS palatal umlaut regularly occurs, so that we find *cneoht* > *cniht* 'boy', *reoht* > *riht* 'right',[1] and similarly *wrixl* 'change', *Wiht* 'Wight', *Piht* 'Pict',[2] *ġewiht* 'weight'. Alongside such forms are others without palatal umlaut, which are to be explained under §5.117. LWS texts show the change equally, hence LWS *cniht*, etc. There are no examples in WS of the change affecting long diphthongs, hence *lēoht* 'light' and similar forms are normal. Additionally, the personal name element *-byrht, -birht* from older *-beorht*, also found as a first element, suggests either that palatal umlaut could also occur if there were an intervening liquid, or that the group *beor-* was subject to a special development. In support of the latter view are other forms such as Chron(A) 931,933 *Byrnstan*, see Campbell (1959: §305n1) and cf. Brunner (1965: §122A3).[3]

[1] *Riht* only occurs in derived forms in EWS, such as *unrihtwis* ‘unrighteous’, with the simple form being *ryht*, see §5.113n2, but in LWS the normal form is *riht*.

[2] The word only occurs when an inflectional back vowel follows, for example, *Pihtas* alongside expected *Peohtas*, see further §5.117.

[3] Any explanation from palatal umlaut which supposes that this example shows that a liquid may intervene, see also §5.115, must presume that frequent metathesis to *byrht*, etc. does not precede the umlaut. The explanation of forms with /y/ may either be parallel to that for *ryht*, see §5.113n2, or due to the labializing effect of /b/.

5.115 Among the early Kt charters Ch 1200.5 has *rehtlicast* ‘most right’ alongside 1200.14 *reohte* ‘right’ dat.sg., and Ch 1482.62 has *sex* ‘six’ (2×), see §5.113n2. These cases would seem to confirm that the first stage of palatal umlaut was monophthongization. Indeed the later OccGl 49.36 *ġenihtsumiað* ‘they abound’ may suggest that Kt /e/ < /y/ could undergo the raising process, see Williams (1905: §54), and 1151 *hlihð* ‘he laughs’ (and, by analogy, 11 *hlihhe* ‘I laugh’) shows raising of /e/ which is the result of *i*-umlaut of a diphthong.[1] Other examples in the same text which show both monophthongization and raising include: 344 *wiht* ‘weight’, 702 *ġewric*[*s*]*l* ‘change’, 1067 *cnihthade* ‘knighthood’, 169 *unrihtemere* ‘adulterer’, note also 1175a *ġerihta* ‘rights’ with a following back vowel. Finally in the same text 509 *tirhð* ‘he mocks’ may indicate raising of /e/ even when a liquid intervenes, see §5.114n3 but also n1 below.

[1] But these, and *tirhð* below, may simply be examples of ⟨i⟩ for ⟨e⟩, occasionally found elsewhere in the same text, such as 724 *sliċċ* ‘sledge-hammer’, 698 *hinrað* ‘he is hungry’ (with ⟨i⟩ for Kt *y* > *e*), compare with these 920 *dehtnunge* ‘disposition’ with ⟨e⟩ for ⟨i⟩. Notably OccGl 49 has cases where *ī* and *ē* are similarly confused, although examples of palatal umlaut of long vowels are extremely rare throughout OE. Thus we find *aflīġð* ‘fled’ alongside the expected form in 756 *ġebēġð* ‘he curves’, and 353 *lēċetere* ‘hypocrite’ for usual *līċettere*.

5.116 The only examples of palatal umlaut in Angl are to be found in the late Ru1 and OccGl 54. In the former occur *riht* alongside *reht*, *sihþe* ‘behold’, and *niht* ‘night’.[1,2] OccGl 54 has both *riht* and *reht* but *cniht* (3×). The twelfth-century LS 3 (Chad) has a mixture of raised and unraised forms. Nbr texts show no instances of the change.

[1] But Ru1 always has *cneht* ‘boy’, leading to, for example, MtGl(Ru) 2.14 *he arīsende ġenom þone* ***cneht*** *ond his mōder on* ***niht***. MtGl(Ru) 27.45 *syxta* can scarcely be an example of the change, see §5.113n2.

[2] Ru1 also has two words apparently showing palatal umlaut of long vowels, namely *līht* ‘light’ alongside *lēht*, *lēoht* and *nīhste* (1× only) alongside frequent *nēhstum*, *nǣhstum*, etc. But such forms may show the operation of palatal umlaut after shortening before consonant groups, as suggested by Campbell (1959: §310), see also §5.199.

5.117 As pointed out in §5.113, palatal umlaut occurs only where the consonant cluster is not directly followed by a back vowel, hence contrasts such as *cniht* ‘boy’, *cneohtas* ‘boys’. Therefore there is considerable scope for analogical levelling and extension, and in EWS, where levelling away of the change is preferred to extension, we find forms such as *cneoht* alongside *cniht*. In LWS, on the other hand, extension of the umlaut is regular, hence *cniht*, *cnihtas*.[1] Notable here is the verb *feohtan* ‘fight’ and forms, which in both EWS and LWS almost always shows no umlaut, forms such as *fihtan* occurring rarely and generally in less reliable late texts.

[1] In view of the regularity of LWS *cnihtas*, etc. it might be supposed that in LWS even in those forms the consonant cluster had become sufficiently palatalized to permit palatal umlaut to take place, rather than ascribe the shift to analogy.

5.118 The chronology of palatal umlaut in WS is somewhat unclear because of its lack of interaction with other changes. Thus the diphthongs /ı͝o, e͝o/ would both become /i/ by palatal umlaut whether the merger of the two diphthongs, see §§5.155ff., took place before or after the current change. Similarly, the occlusion of the /x/ > /k/ in the group /xs/ is of uncertain date, see §7.9, and hence of little help. On the other hand, the evidence of spellings in the early texts implies that the change must have taken place by the ninth century. Similarly the monophthongization involved is attested in ninth-century Kt charters, although the raising is not attested until OccGl 49. In Merc the change is not seen even in the ninth-century Ps(A), and it seems not to have spread to Merc dialects until the tenth century. ME evidence, see Jordan (1974: §69), shows that the change later spread to Nbr also, although not always, but this is clearly post-OE. The change, therefore, was earliest in the S. and only gradually spread northwards.

XI Palatal monophthongization

5.119 In WS at least[1] there appears to be a somewhat sporadic tendency for both long and short /æɑ, æ͝ɑ/ to be monophthongized to /e(ː)/ when preceded by a palatal consonant, that is, *ċ*, *ġ* or *sċ*, or followed by an original velar, that is, *k*, *g*, or *h* (= /x/), or by a palatal consonant due to palatalization.[2,3] Typical examples of each case are: *ċēas* > *ċēs* ‘he chose’, *ċearf* > *ċerf* ‘he cut’, *ġēar* > *ġēr* ‘year’, *ġeaf* > *ġef* ‘he gave’, *sċēap* > *sċēp* ‘sheep’, *sċeaft* > *sċeft* ‘shaft’, *bēacon* > *bēcon* ‘beacon’, *ēaġe* > *ēġe* ‘eye’,[4] *hēah* > *hēh* ‘high’, *seah* > *seh* ‘he saw’, *smēaġanne* > *smēġanne* ‘think’ infl.inf., *onġeaġn* > *onġeġn* ‘against’.[5] In the vast majority of instances the monophthongal forms exist alongside more numerous forms with the original diphthongs. Since original /æ(ː)/ as in *lǣgon* ‘they lay’, *bæc* ‘back’ was not raised, it must be assumed that the first element of the diphthong was either originally higher than /æ(ː)/ or was raised during the monophthongization;

compare the processes involved in palatal umlaut, see §5.113, also §2.34, and Bliss (1950: 85). The monophthongization before an original velar bears clear similarities to palatal umlaut and may well be explained on the same grounds, with the relative infrequency of the shift due to the fact that the diphthong involved is low and thus less likely to palatalize the following consonant. But, on the other hand, the monophthongization after palatals is clearly related to the process of palatal diphthongization, see §5.49 and, for examples of Nbr raising after palatals, §5.54. It is tempting to assume, therefore, that the changes under discussion here are an extension of palatal diphthongization, that is, that the sequence **ġǣr* > *ġēar* > *ġēr* reflects an intensification of the original change. For this reason it may be preferable to call this change palatal monophthongization, rather than the more usual 'Late West Saxon Smoothing'.[6] Clearly, although the change bears close similarities to both smoothing and palatal umlaut, it differs crucially in that the diphthong is raised and monophthongized in the environment of not only a following palatal but also a preceding palatal. The change may be approximately stated as follows:

$$\begin{bmatrix} \text{V} \\ \text{–back} \\ \text{+low} \end{bmatrix} \begin{bmatrix} \text{V} \\ \text{–syll} \end{bmatrix} \Rightarrow [\text{–low}]\ \varnothing\ / \begin{bmatrix} \text{C} \\ \text{+high} \\ \text{–back} \end{bmatrix}$$

[1] Apparent examples in the early Kt charters, such as frequent *ǣc* 'also', Ch 41.19 *hǣgȳðe* place-name, alongside 41.3 *hēagȳðe*, Ch 1510.24 *bǣgmund* personal name, are most probably due to Merc influence, namely smoothing, see §5.99n7, but OccGl 49 has a few examples of the change: 1035 *ðēh* 'although', 954 *smēġan* 'consider', 52 *meht* 'you may', beside other forms such as 1119 *hēah* 'high', etc. There appear to be no cases, however, of a preceding palatal causing the change in Kt. Naturally the change is not observable in the Angl dialects.

[2] But in this last case the only consonant which is associated with the change is /j/, examples of palatalized /k/ and /sk/ being wanting.

[3] Monophthongization of apparent diphthongs by palatal diphthongization of back vowels is not found, hence *ġeāra* 'formerly', *sċeadu* 'shadow', etc. In many cases this must be because no diphthong was actually present, see §5.69 for discussion of the diacritic status of ⟨e⟩ in forms such as *sċeadu*, and in the type represented by *ġeāra* the change would not take place even if it were diphthongal, since the first element would be [–low] already, see §5.61. There is no need to suppose, as does Campbell (1959: §313), rising diphthongs in these cases.

[4] There appear to be no examples of monophthongization of short /æ̆ɑ/ before /j/ (< */ɣ/).

[5] In this case the change may have taken place before loss of /j/, that is, *onġæġn* > *onġeġn* > *onġēn*, but see further §§5.123, 128.

[6] The term 'Late West Saxon Smoothing' is also inappropriate since it wrongly implies that the change did not take place in EWS, see further §5.120.

5.120 Examples of palatal monophthongization in EWS are somewhat sporadic and variably represented in the texts. In CP the chief examples are: 191.11 *ġere* 'certainly', *forġet* 'he forgot' (2×), 113.14 *mehte* 'he could', *onġēn* 'against' (2×), *sċel* 'he must' (2×), CP(C) 36.7 † *pleh* 'he risked', 262.7 † *unsċeðfulliċe* 'innocently', and, with long vowels, CP 103.15 *ðēh* 'although', CP(C) 152.13 † *smēġeanne* 'consider' infl.inf. Chron (A) has only 878.12 *onġēn* and *Andredesċester* place-name. These forms all exist beside an overwhelming preponderance of diphthongal forms. In addition CP has a slightly higher proportion of cases where the preterite of irregular weak class 1 verbs shows monophthongization, for example, *rehte*, *rehton* 'he, they narrated', *lehte* 'he moistened', *astrehte* 'he stretched out', beside *reahte*, *leahte* etc. Since such monophthongized forms are general OE it is usually assumed that they have been formed on the analogy of the present tense (*reċċan*, etc.), see Brunner (1965: §122A6).[1] In Oros the monophthongization occurs more frequently, and *þēh* 'although' occurs 114×, *þēah* 24×, note also always *flex* (2×), never *fleax*, see Bately (1980: xli). Other examples, such as *forġef* 'he forgave', *onġet* 'he realized', *nēh* 'near', *ġēr* 'year', occur beside more frequent diphthongal forms.

[1] Or it could be that the phonological change was carried out here more frequently than usual due to the favourable morphological conditions, see Bazell (1974) for some similar cases but cf. §5.121.

5.121 In LWS the best mss. of Ælfric show scarcely any signs of monophthongization and thus we find consistent *ċeaster* 'castle', *sċeal* 'he must', *ġēar* 'year', *hēah* 'high', *eahta* 'eight', *onġēan* 'against', etc.[1] A similar situation obtains in WHom, but here should be noted *þēh* 'although' 11× against *þēah* 54×. In various other texts the monophthongization is more frequent, although often still a minority form. Thus Chron(C) up to 977 has *ġēr* 'year' 6× against *ġēar* 24×. On the other hand Ælfric and Wulfstan, along with other LWS texts, consistently prefer such forms as *rehte* 'he narrated' to *reahte*, supporting the view that the verbal forms are analogical, cf. §5.120 and n.

[1] Note, however, consistent ÆCHom, ÆLS *nēhġebur* 'neighbour' (10×), which may be due to the following /j/, see Luick (1914–40: §277). Much less significant is ÆCHomI 17 181.2 *þēh* against very frequent *þēah*.

5.122 There appear to be no major morphophonological implications of this change, and its infrequency suggests only that the change was never more than partially implemented.

5.123 The sporadic nature of this change makes it difficult to determine its relative chronology, but the available evidence suggests that it was clearly present in the dialect of the post-Alfredian Orosius and must have been known in Alfredian times also, if to a lesser extent. The Kt evidence, such as it is, see §5.119n1, suggests that it did not reach Kt until the tenth century. All this points to a date for the change only a little after the date of palatal umlaut, see §5.118. Note that the form _onġēn_ < _onġeaġn_ could be due to either the preceding or the following palatal and therefore does not provide a dating relative to the loss of /j/, cf. Sprockel (1965: §1.1.10), who appears to hold a different view.

XII Compensatory lengthening

5.124 In all dialects, and at about the same time as smoothing, /x/ was lost: (1) between vowels; (2) between a vowel and a voiced consonant; (3) between a liquid and a vowel, see §§7.50–1. and §§5.100(2), 102 for discussion of the relative chronology. When /x/ is lost, then in at least cases (1) and (2) the preceding vowel is, if not already long, lengthened. Thus we find examples such as; Angl *_sihið_ > *_sī-ið_ ‘he sees’, *_feohes_ > *_fēo-es_ ‘property’ gen.sg., cf. _feoh_ nom.sg., *_ġesiehne_ > _ġesīene_, _ġesȳne_ ‘visible’, *_stiehli_ > _stȳle_ ‘steel’. Typical type (3) examples, discussed further below, would include *_feorhes_ > _fēores_ ‘life’ gen.sg., *_wealhes_ > _wēales_ ‘foreigner’ gen.sg. The reasons for the vowel lengthening are most clearly observable in a form such as *_stiehli_, where we may suppose an original syllable division as _stieh$li_. Such a form adheres to the normal OE situation in which the rhyme of a stressed syllable contains at least two morae, that is, a long vowel or diphthong or a short vowel plus consonant, see §§2.80–2 for discussion. With the loss of /x/, however, the word no longer conforms to normal syllabic structure, and therefore the moric unit which /x/ originally filled is then filled by a lengthening of the preceding vowel.[1,2] In other words, the preceding vowel is lengthened in order to compensate for the loss of the following consonant. Hence the process is known as compensatory lengthening. Exactly the same process occurs in forms such as *_sihið_, to give *_sī-ið_ before the hiatus is resolved.[3] However, in the type (3) cases, such as *_feorhes_ with the syllable division *_feor$hes_, it should be clear that loss of /x/ would result in _feor$es_ without compensatory lengthening, since the first syllable of the word would still have a bimoric rhyme. This is demonstrated by place-names such as PDE _Hale_ < OE _hale_ ‘nook’ dat.sg. < _halhe_, which if subject to compensatory lengthening would have given **_Hole_, see Quirk and Wrenn (1957: §189) and references therein, cf., however, Dietz (1970). On the other hand there is metrical evidence that compensatory lengthening could take place even in these forms, see Sievers (1893a: §77), Amos (1980: 34–6), and therefore lengthened and unlengthened forms often appear to co-exist, see §5.127 for further details, and, for a detailed analysis of poetic forms, Amos (1980: 37–9).[4]

[1] Although the evidence for lengthening is mainly metrical, see Sievers (1893a: §77), the change is one which would be predicted on phonological grounds. Orthographic evidence for the change comes from EpGl 49 *steeli* 'steel', ErfGl 333 *unġizeem* (= *unġizeeni*) 'unseen', EpGl 712 *ōnettae* 'he anticipated' (?), see Pheifer (1974: §60).

[2] It should be noted that for this process to occur it is essential that the words be originally disyllabic. Therefore in a case such as **þweaxl* > *þwēal* 'washing' it must be assumed either that the /l/ is syllabic or that there is an epenthetic vowel, see §§6.38–40. But this would follow from the normal phonotactics of OE, see §2.83.

[3] For discussion of the relative chronology of compensatory lengthening and hiatus resolution, see further §5.130.

[4] Since compensatory lengthening is a process dependent upon syllable phonotactics, it does not take place in unstressed syllables, which only require one mora in the rhyme, see §2.80. Hence *ne habban* > *nabban* 'not have', see §§5.152–3. Compare, however, *bēot* 'boast' < **bi-hat*, where the first syllable must have been stressed.

5.125 Compensatory lengthening occurs under four circumstances: the three different types of loss of /x/ discussed in §5.124 and in the case of loss of /j/ before a dental[1] consonant. Compensatory lengthening due to loss of intervocalic /x/ is by far the most frequent, and is dealt with below under hiatus, see §§5.131ff. The remainder are treated in §§5.126–8 respectively.

[1] The consonant is usually /θ/, /d/, or /n/, see §7.71 for details.

5.126 In all dialects whenever /x/ is lost between a vowel and a voiced consonant the vowel is lengthened in compensation. Almost all the certain examples are cited in §5.124, but additional examples probably include **yhmest* > *ȳmest* (< **uxumist* by iterative *i*-umlaut, see §5.76). For other possible examples see Campbell (1959: 241.1). Additional examples occur with compounds of *eoh* 'horse' and *pleoh* 'danger', hence *ēored* 'troop', *plēoliċ* 'dangerous'.

5.127 When /x/ is lost between a voiced consonant and a vowel, then in all dialects the fluctuation between lengthened and unlengthened forms described in §5.124 occurs regularly, although it seems likely that the unlengthened forms were the more common. Typical examples occur in the inflected forms of words such as *feorh, wealh*, see §5.124, and all other short-stemmed nouns of the same structure, similarly verbs such as *fēolan* 'adhere' < **feolhan*, cf. WS *filhð* 'he adheres'. Of special interest are various forms of *sweora* 'neck' < Gmc **swerho*, for the usual LWS form is *swura* which can only have a short, that is, unlengthened, vowel, see §5.184.[1,2] The poetical form *firas* 'men' < **feorhas* would appear always to be long, but this could well be a poetic convention and need not be significant. In obscured compounds lengthening appears to be regular, hence *īfiġ* 'ivy' < **if-hieġ*, *ōnettan* 'hurry', *ōrettan* 'fight' < **an-*, **or-haitjan*. But if the compound remains, then syllable boundaries conform to the morphology, and there is no lengthening, hence LawAf 1.22 *eofot* 'crime', and forms of *eofolsian* 'blaspheme' < **ef-hat, *ef-halsian*.

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[1] Also fairly common in LWS is *swȳ̆ra* which is the normal development of the rival form **swī̆erhjo*, of ambiguous length (as is earlier and rarer *swē̆ora*).

[2] Also note nom.sg.fem., acc.pl.neut. *þweoru* 'crooked', where *-u* may imply a short stem vowel, and forms such as Lk(WSCp) 9.41 *þwure* (cf. ChrodR 1.31 *þwur* nom.sg. (2×)) against LWS (not Ælfric, Wulfstan) *þweor* nom.sg. Lch *moru* 'carrot' is similar to *þweoru*, but the introduction of *-u* may have been too late to be significant. ÆCHom *þwyrian* 'be opposed' inf. and other forms of the pres. clearly demonstrate a short vowel.

5.128 When, especially in WS, /j/ is lost before a dental consonant, then compensatory lengthening naturally occurs, thus *rēn* for original *reġn*. In EWS texts forms with /j/ are common, see Cosijn (1888a: §135), but in LWS forms without /j/ and so with lengthening greatly predominate, hence EWS *þeġn*, LWS *þēn* 'thane'. Similarly in other dialects where loss of /j/ is comparatively rare, compensatory lengthening follows the loss when it does occur, for example, Nbr *onġǣn* 'against' beside more frequent *onġæġn*.[1]

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[1] More detailed discussion of forms will be found in §7.71.

5.129 Given the phonological nature of compensatory lengthening, there is little scope for morphological reformation. Thus, for example, in the case of a verb such as *sēon* 'see', where the vowel or diphthong, see below §5.148 and n1, of the first syllable is long, contrasting with the short diphthong of *seah* 'he saw', analogical reformation would be most unlikely. The only possible instances of analogical change involve nouns such as *feorh* 'life' and others discussed in §§5.124, 127 where the short diphthong in inflected forms could be attributed to the uninflected nom.sg. But in the light of other forms such as *swura*, see §5.127, which is short despite the fact that /x/ is always lost, an analogical explanation, as in Girvan (1931: §113A), for *feores*, etc. is redundant, cf. Luick (1914–40: §250A1).

5.130 With respect to chronology the same arguments hold as in §5.129. That is to say, compensatory lengthening is purely automatic and therefore takes place whenever the opportunity arises.[1] Thus compensatory lengthening takes place at exactly the same time as loss of /x/ or /j/. For details of these changes see §§7.50–1, 71 and also, in the case of loss of /x/, §5.102. There is considerable variety of opinion amongst scholars about the relative chronology of hiatus resolution, see §§5.131ff., and compensatory lengthening. Luick (1914–40: §250) generally sees the lengthening, which he explains as due to the necessity 'die ursprüngliche Gesamtquantität der Silbe bezw.

des Sprechaktes zu bewahren', cf. §5.124, as being occasioned by the loss of /x/ and therefore earlier than resolution of the hiatus, but somewhat irrationally seems to suggest (§242) that when resolution of hiatus results in a diphthong, lengthening only takes place when the diphthong is formed. Both Campbell (1959: §234) and Brunner (1965: §127) claim that resolution of hiatus precedes compensatory lengthening, but that it itself involves lengthening; therefore the processes described above, they claim, only take place if the first vowel or diphthong has not already been lengthened by hiatus resolution.[2] This is unnecessarily complex and further denies that compensatory lengthening is a process which simply makes syllables conform to the normal phonotactics of the language. Similar confusion seems to appear in Bülbring (1902: §§217, 528), J. Wright and Wright (1925: §§139–49), and Girvan (1931: §§110–13).

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[1] See Colman (1985: 20), also Chene and Anderson (1979).

[2] Brunner (1965: §218.2) even seems to suggest that loss of /x/ is later than compensatory lengthening, which is scarcely credible.

XIII Hiatus

(a) Stressed vowel + unstressed vowel

5.131 At about the time of the earliest texts, see §§5.133, 149, in the vast majority of cases where a stressed vowel or diphthong was immediately followed by an unstressed syllabic vowel, so that they stood together in hiatus, the hiatus was resolved, either by loss of the unstressed vowel or by diphthongization, in which case the second vowel became nonsyllabic. In every instance, by compensatory lengthening the stressed vowel or diphthong would be already long, since it occurred finally in a syllable. Such hiatus could arise for three reasons: (1) the hiatus may be original in Gmc but have remained unresolved when a similar change took place in WGmc, see §3.19; (2) the hiatus may be due to loss of intervocalic /j/ and /w/, see again §3.19; (3) the hiatus may be due to lenition and loss of intervocalic /x/, see §7.45. These three sources are listed in chronological order, and it is important to note that the last of them, loss of /x/, is crucial to the dating of the present changes, see §§5.132–3, 149. It should also be noted that by far the greatest number of cases of hiatus are due to this third source, and examples of hiatus due to either of the other two sources are few in comparison. The hiatus sequences, whether original or due to the loss of an intervocalic consonant, are of two principal types: (1) long vowel or diphthong + front vowel; (2) long vowel or diphthong + back vowel.[1] Examples of type (1) are: **dē-ist* 'thou dost', **sċō-es* 'shoe' gen.sg., and in all dialects for all cases of type (1), but see further below for a possible exception, the unstressed vowel is normally lost, hence *dēst*; *sċōs*. Type (2) must be further subdivided into: (2a) front vowel + back vowel; (2b) back vowel + back vowel; (2c) diphthong + back vowel. Examples of each are: **bī-o* > *bēo* 'I am'; **dō-an* > *dōn* 'do'; **ēa-am* > *ēam* 'uncle'. Type (2) words show considerable variation, for example, both *dōn* and *dōan* are found. The interpretation of spellings involving this variable development in hiatus of unstressed back vowels is difficult and is discussed separately below, see §5.147. Nevertheless it is clear that the most frequent position in OE is that hiatus sequences become no longer tolerated and therefore an unstressed vowel is lost when it immediately follows a long stressed vowel or diphthong, with the vowel loss being most regular if the unstressed vowel is front, but subject to variation if the unstressed vowel is back. A further complication arises in the case of **ī+e* sequences, such as **sī-e* 'be' subj., for then the unstressed vowel appears always to remain in all dialects. These sequences are discussed separately below, see §5.146, whilst loss of an unstressed vowel is discussed in §§5.132–4 and loss of an unstressed back vowel in §§5.135ff. For all cases except **ī+e*, however, we can give the following general approximation:

$$\begin{bmatrix} \text{V} \\ -\text{stress} \\ (-\text{back}) \end{bmatrix} \Rightarrow \emptyset \; / \begin{bmatrix} \text{V} \\ +\text{stress} \end{bmatrix} \underline{\qquad}$$

[1] Many writers appear to suggest that the crucial factor in determining the nature of hiatus resolution is the stressed vowel or diphthong. This is implied, for example, in the presentations in Girvan (1931: §§108–12), Campbell (1959: §§234–8), and Brunner (1965: §§127–35). But it seems clear that it is the nature of the unstressed vowel which is crucial. For this reason it might be preferable to treat hiatus resolution in Chapter 6, but the question is moot and the traditional placement under development of stressed vowels is followed here for ease of comparison. For ease of comparison also, hiatus of unstressed vowel + stressed vowel is discussed in §§5.150ff.

5.132 In all dialects by the time of the written texts whenever the hiatus sequence vowel + front vowel occurred the hiatus was resolved by loss of the unstressed back vowel. By this time the only unstressed front vowels were *i* and *e*, see §§6.46, 48–9, and they were equally affected by the change. Since, see §5.131, the majority of instances of hiatus are caused by loss of intervocalic /x/, which would earlier have caused breaking of front vowels, there are rather few cases of front vowel + front vowel hiatus in WS, where diphthong + front vowel occurs instead. But in Angl smoothing intervenes to monophthongize such diphthongs, so that at the stage of hiatus resolution there are contrasts such as **feoxes* > WS **fēo-es*, Angl **fēxes* (smoothing) > **fē-es*. Typical examples of loss of an unstressed vowel in hiatus are as follows: Angl **sī-ið* > *sīð* 'he sees', **wrī-ið* > *wrīð* 'he covers', and similarly other contracted verbs; Angl **hē-ira*, **hē-ist* > *hēra*, *hēst* ‘higher, highest’, cf. *hēh* ‘high’, Ps(A) **slē-is* > *slēs* ‘thou strikest’, cf. usual Angl *slǣs* < **slǣ-is*;[1] **gǣ-ist*, **gǣ-ið* > *gǣst*, *gǣð* ‘thou goest, he goes’;[2] **cū-e*, *cū-es* > *cū*, *cūs* ‘cow’ gen.sg., **ġebū-en* > *ġebūn* ‘dwell’ pa.part.; **sċō-es* > *sċōs* ‘shoe’ gen.sg., **fō-e* > *fō* ‘take’ pres.subj.sg., similarly forms of *hōn* ‘hang’; **fā-e* > *fā* ‘hostile’ var.infls., similarly many other adjectives, **dā-e* > *dā* ‘doe’ nom.sg. and other similar wk.fem. nouns; and with first vowel /yː/ due to *i*-umlaut, **drȳ-i* > *drȳ* ‘magician’, **þȳ-ið* > *pȳð* ‘he presses’, similarly *tȳð* ‘he instructs’.[3]

5.133 Notwithstanding the above, there a number of examples where the unstressed vowel remains. Several occur in the early Merc glossaries, where they may indicate that resolution of the hiatus had not taken place at the time of composition of the earliest mss., perhaps confirmed by EpGl 785, CorpGl 1582 *faehit* ‘he paints’ and other examples where intervocalic /x/ has not been lost. Examples from these texts are: ErfGl 384, CorpGl 800 *sīid* ‘he sieves’,[1] ErfGl 899, CorpGl 1910 *strēidæ, strēide* ‘he strewed’,[2] EpGl 870 (also forms in ErfGl, CorpGl) *fram adōendre* ‘take away’ pa.part., ErfGl 3, CorpGl 207 *thōae* ‘clay’, cf. EpGl 3 *thōhæ*.[3] Beo 2436 *strēd*, cf. *strēide* metrically requires a disyllabic form, but this could be a function of slow speech rather than an archaism. More significant than the above are instances in other and later Angl texts where a disyllabic form appears to remain. The most frequent examples are amongst the contracted verbs *fēon* ‘rejoice’, *flēon* ‘flee’, *fōn* ‘take’, *hōn* ‘hang’, *sēon* ‘see’, *slēan* ‘slay’, *tēon* ‘draw’, *þēon* ‘thrive’, where the pr.subj. and 2nd, 3rd sg.pr.ind. should show contraction. But the following uncontracted forms are found: pr.subj. sg. Ps(A) *ġefēe*, Li, DurRitGl *sīi*, DurRitGl *ġeðīi*, 2sg.pr.ind. Li *fōæs, fōeð* (etc.), Ru1 *sēes*, Li *sīis*, DurRitGl *sīist*, 3sg.pr.ind. Li *flīið, sīið*, DurRitGl *flēeð*, infl.inf. Li *fōenne*, Ru1 *sēenne*, pr.part. Ru1 *sēende*, Li *fōende, hōende, sēende, sēænde, þīiende*, DurRitGl *flēende*.[4] All these forms exist alongside a majority of forms where the second vowel has been lost, but nevertheless they suggest that in Angl at least the second vowel could remain if protected by inflexional juncture, see further §5.147. Outside the contracted verbs such forms are rare, but LkGl(Li) 15.12 *fǣes* ‘money’ gen.sg. is a clear example.

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[1] Most scholars explain Ps(A) *slēs* as due to *i*-umlaut, with the other Angl forms showing normal Angl levelling of umlaut. But such levelling is normal in Ps(A) also, and therefore an umlauted form seems improbable. Alternatively we could suppose that smoothing gives **slæxis* with umlaut levelled away and that loss of /x/ with compensatory lengthening is sufficiently early to cause /æː/ to raise to /eː/ in line with the smoothing of /æɑ/, see §5.99. This has the advantage of explaining Ps(A) *slē* pr.subj., which would otherwise show a remarkable analogical extension of *i*-umlaut, but it does not explain why the phenomenon is restricted to Ps(A) and is not general Angl.

[2] In WS loss of /x/ is later than syncope of unstressed vowels in the 2nd, 3rd sg.pr.ind. of strong verbs, and therefore hiatus of this type can only occur there in WS if it arises without loss of intervening consonant, see further §5.134.

[3] Since *þȳð, tȳð* are weak verbs the loss of /x/ is not preceded by syncope, cf. n2 above.

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[1] As with many of the other forms cited below, *sīid* is ambiguous, since ⟨ii⟩ could indicate the long vowel /iː/ rather than a disyllabic sequence.

[2] Unless the form is *streide* with a short vowel, a weak preterite of *streġdan*, as suggested by Pheifer (1974: §59.2n1). This then might be an example of second fronting.

[3] Pheifer (1974: §59.5) suggests that in EpGl, ErfGl uncontracted forms are most common when the first vowel was rounded, and hence that hiatus persisted longer in these circumstances. But the evidence is meagre and it is doubtful if such an interpretation can be put upon it.

[4] For some other more doubtful forms see the full list in Brunner (1965: §374).

5.134 Just as instances of front vowel + front vowel are most frequent in Angl, so instances of diphthong + front vowel are most frequent in S dialects where smoothing does not intervene. But as in the cases cited under §5.133, in the sequence diphthong + front vowel the hiatus is resolved by loss of the unstressed front vowel. Typical examples are: **ġefeaxæ* > **ġefēa-e* > *ġefēa* ‘joy’,[1] and similarly **sēo-e* > *sēo* ‘pupil (of eye)’, together with a great many examples from the inflected forms of nouns and adjectives. Thus *feoh* ‘money’ has gen.sg. *fēos* < **fēo-es*, and *hēah* ‘high’ has gen.sg.masc. *hēas*. Other forms from similar nouns and adjectives are cited in Campbell (1959: §235.2). Since in WS syncope of unstressed vowels in 2,3sg.pr.ind. of strong verbs occurred before loss of /x/, the examples of such forms cited under §5.133 from contracted verbs in Angl are not paralleled in WS, for example, WS **siexið* > *sihð* ‘he sees’. But other inflections of these verbs show the expected vowel loss, such as *sēo* ‘I see’, *sēonde* ‘seeing’. Similar forms are found in Kt, such as OccGl 49.1048 *flīo* ‘he may flee’, 724 *slēande* ‘slaying’.

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[1] Ps(A) *ġefēa, ġefīa* is probably from **gefexo* by §§5.137, 139, whilst Nbr *ġefēa* is ambiguous and may be from either **ġefexo*, cf. OHG *gefeho*, or, as in WS, **gefaxo*.

5.135 When a front vowel was immediately followed by a back vowel, then in all dialects the hiatus was normally[1] resolved by diphthongization, with the unstressed vowel becoming the second element of a long diphthong. In principle any front vowel, including /yː/ as the product of *i*-umlaut, could be followed by any unstressed back vowel, that is, *u*/*o* or *a*, but there were significant dialectal differences in distribution. Where the first vowel was /iː/ or /yː/ then hiatus occurred in all dialects, but if the first vowel was either /eː/ or /æː/ the monophthong was always due to smoothing before /x/ and therefore hiatus sequences were restricted to Angl.

See further the discussion in §5.147 below. Sievers (1900: 45–60) gives a concise overview of the phenomenon in the principal EWS and Angl texts.

5.136 When the hiatus sequences **ī-o*, **ī-a* occurred in WS, then diphthongization gives in both cases the diphthong *īo*, which later develops as *ēo*, see §§5.155–62.[1] The best examples of this are found in the conjugation of *bēon* 'be', where, for instance, **bī-u* > **bī-o* > **bīo*[2] > *bēo* 'I am', **bī-að* > *bīoð* > *bēoð*. Similarly WS has *bēo* 'bee'.[3] Excellent examples of the change and the merger of the two hiatus sequences to the diphthong *ēo* in WS are found in the conjugation of the weak class 2 verbs *fīogan* 'hate', *frēogan* 'free'. Hence are found *fēoð* 'he hates' < **fī-að* and *fēode* 'he hated' < **fī-ode*.

[1] In Kt OccGl 49 has *bīoð* 10× against *bēoð* 1×.

[2] This form is not attested in EWS but may be safely inferred.

[3] From inflected forms. The nom.sg. should be **bīe* < **bī-e* < **bī-æ*, cf. PsGl(E) *bīebrēd* 'bee-bread'.

5.137 In so far as the development of diphthongs in Merc is parallel to that in WS, so the resolution of hiatus is parallel also. Therefore **ī-o* > *ēo*, although ⟨io⟩ spellings are also found. However, in Ps(A) especially, see §5.45, ⟨ea⟩ spellings sometimes occur where ⟨eo⟩ would be expected, and more rarely the diphthong /æɑ/ is sometimes spelled ⟨eo⟩. Whatever the precise significance of this, the consequence in the present circumstances is that the hiatus sequence **ī-a* normally remains distinct from the sequence **ī-*o, although the first vowel is lowered to /eː/ as in the case of **ī-o*. We therefore find **ī-a* > *ēa* (= /eɑ/, not /æɑ/). All four graphic combinations are, however, substitutable for one another, because of the lateness of the shift *īo* > *ēo* and the changes discussed in §5.45. For the verb 'to be' the normal spelling throughout Ps(A) is ⟨io⟩, hence not only *bīom* 'I am' but also *bīoð* 'they are'. Forms with ⟨ia⟩ are relatively infrequent, for example, *bīað* 3×, as are forms with the first graph ⟨e⟩, such as Ps(A) 118.15, 142.7 *bēom*, note also 12.5 *bēam*. The same text distinguishes regularly between **fīað* 'he hates' and *fīode, fēode* 'he hated', but there is considerable confusion of forms of *frēogan*. The early Merc glossaries show both ⟨io⟩ and ⟨ia⟩ spellings for **ī-o* in EpGl 20, CorpGl 181 *bīo* 'bee', ErfGl 299, CorpGl 602 *sċia* 'shin', but ⟨a⟩ for **ī-a* in EpGl, ErfGl 158, CropGl 328 *ċīan* 'gills', and EpGl 666a *frīat*, ErfGl *frīad* 'he loves(?)'. In Ru1 ⟨eo⟩ spellings greatly predominate over all other forms, hence both *bēom* 'I am' and *bēoð* 'they are' are normal. All the forms cited above are the result of early hiatus sequences, but naturally in Merc hiatus of this type could also arise through smoothing and subsequent loss of /x/. The development of these later sequences parallels that described above, and so are found Ps(A) 103.9 *oferwrēan* 'cover' inf. (< **-wrīxan*), MtGl(Ru) 16.17 *onwrēoð* 'reveal' pl.pr.ind. EpGl 97 *ġitīungi* ‘preparation’ shows early *īu* for *īo*, cf. ErfGl *ġetīong*, EpGl, ErfGl 12 *flīo* ‘flea’.

5.138 In NNbr (Li, DurRitGl), since *īo* and *ēo* are normally kept distinct, see §5.159, but the second element is normally lowered, see §5.44(2), one would expect the sequences **ī*-o and **ī-a* both to develop to *īa*. Thus we find CædH 8 *tīade* ‘he arranged’, Li *-wrīað* ‘wrap’ pr.ind.pl., *tuīade, tuīaton* ‘doubt’ pa.ind., all with loss of intervocalic /x/. In the case of *bīon, bēon* ‘be’, however, ⟨eo⟩ spellings tend to predominate. Thus Li has *bēom* ‘I am’ 13×, *bīom* 7×, *bīum* 1×. The only relevant form of the pl.ind. is MtGl(Li) 26.2 *bīað*. In SNbr the second element of diphthongs is normally rounded and therefore we would expect ⟨io⟩ spellings everywhere. In fact Ru2 tends to preserve the original elements well and thus has *twīas, twīade* ‘doubt’ 2sg.pr.ind., pa.ind.sg. alongside *twīodun* pa.ind.pl. Relevant forms of the verb ‘to be’ are *bīom* ‘I am’ and *bīað* ‘they are’.

5.139 The sequences **ē-o*, **ē-a* only occur in Angl where smoothing has operated. In line with the developments outlined above under §§5.137–8, the expected results in Merc would be *ēo*, with some forms having *ēa*, and inverted spellings ⟨io, ia⟩ due to the merger of *īo* and *ēo*. Thus in Ps(A) we find *ġesēan*, *ġesīan* ‘see’ inf., *ġesēað*, *ġesīað* pl.ind., also *ġefīað* ‘rejoice’ pl.ind., all with originally unstressed /a/, and *ġesīo* ‘I see’, *ġefīo* ‘I rejoice’, with originally unstressed /o/. Forms such as *ġesīoð*, *ġefīoð* co-exist only rarely. Other forms in Ps(A) also normally preserve the original sequence, such as *sēan, sīan* ‘pupil (of eye)’ pl., *hwēol*, *hwīol* ‘wheel’, but in the case of *flēon* ‘flee’ ⟨eo⟩ spellings are found throughout, hence not only *flēom* ‘I flee’ but also *flēoð* ‘they flee’. In Ru1, however, the normal result is almost always *ēo*, as in *ġesēoð* ‘they see’ alongside very occasional *ġesēaþ*.

5.140 In Nbr the normal development of both **ē-o* and **ē-a* is to *ēo*, *ēa*, following §5.44. Thus we find in NNbr forms such as Li *suēor* ‘father-in-law’. Despite Füchsel (1901: §22), Campbell (1959: §238), it seems not to be the case that amongst contracted verbs ⟨ea⟩ spellings predominate, for in Li we find only *ġesēom* for 1sg.pr.ind.[1] and other forms with ⟨ea⟩ are predictable, such as *ġesēað* ‘they see’. In SNbr, on the other hand, ⟨ea⟩ spellings do predominate in these verbs to a greater extent than would be expected, the only form in Ru2 with ⟨o⟩ being *ġisīom* (3×).

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[1] JnGl(Li) 16.22 has *ġesīum*, DurRitGl 1 23.3 *sīum* ‘I see’, which help to confirm the validity of the ⟨eo⟩ spellings. JnGl 9.25 *ġeseium* is merely a confused spelling.

5.141 In all Angl dialects where the original hiatus sequence was **ǣ* + back vowel, diphthongization to *ēa* occurred. In the earliest texts, however, there are examples of ⟨eo⟩ spellings, such as EpGl, ErfGl, CorpGl *ēorisċ* 'water-rush', which doubtless show no more than an earlier stage of the eventual /æɑ/ diphthong.[1] The almost invariable ⟨ea⟩ spellings here are best interpreted as representations of /æɑ/, to be distinguished from the spellings cited above §§5.137, 139–40. Typical examples of the diphthongization include: Li, Ru2, Ps(A) *ēa*(-) 'water', Li, DurRitGl, Ps(A) *tēar* 'tear (of eye)', Ps(A) *hēa, hēan, bēam* 'high' var.infl., in Ps(A) various forms of *slēan* 'slay', *ðwēan* 'wash', and in all Angl dialects forms of *smēagan* 'consider', *ðrēagan* 'punish'.

[1] On the other hand Ps(A) 96.1 *ēolond* 'island' alongside 71.10 *ēalondes* is best explained under §5.45. Similarly Name 1.2.3 (Li) *ēolonde, -ēolond-* should be regarded as NNbr confusion, but see §5.44.2 and n7.

5.142 In addition to those above, hiatus sequences of /yː/ + back vowel also occurred. Such sequences would arise when the original sequence was */uːxi/ + back vowel, for after the operation of *i*-umlaut the /i/ would be syncopated, see §6.19, and then intervocalic /x/ would be lost. Thus we have **tūxian* > **tȳxian* > **tȳxan* > **tȳ-an*. In all such cases the hiatus is resolved by diphthongization with the first element of the diphthong being unrounded to /iː/, thus giving /io/, /iɑ/ according to the value of the unstressed vowel. These merge with the other instances of these diphthongs and therefore follow the pattern of development described in §5.136. Forms of this type are found only in WS and hence show the diphthong /eo/, as in **tȳ-an* > *tēon* 'instruct', and similarly forms of *þēon* 'press'.[1] Other examples are *rēo* 'blanket', cf. EpGl 1020 *rȳae*, CorpGl *rȳe*, retaining the hiatus sequence, and probably *cīo*, *cēo* 'crow', cf. ErfGl 240 *cīae*, presumably a diphthong of some kind, EpGl 240 *chȳae* for **cȳhae*.

[1] Alongside which occur *tȳn, þȳn*, analogical extensions from *tȳð, þȳð*, see §5.132.

5.143 When the sequence consisted of back vowel + back vowel, then the resolution of the hiatus apparently operated differently. In WS the usual development was that the unstressed vowel was lost. Therefore we find the contracted strong class VII verbs *fōn* 'take', *hōn* 'hang' < **fōxan*, **hōxan*, together with the anomalous verbs *dōn* 'do', *gān* 'go'. Similarly the inflected forms of a great many nouns and adjectives, such as *sċōh* 'shoe', pl. *sċōs, fāh* 'hostile', dat.pl. *fām*, show loss of unstressed vowel, cf. §5.134.[1] But if the hiatus sequence is **ū-a* then that always remains, for example, *būan, būað* 'build, they build', *sċūa*, *sċūan* 'shadow(s)'.[2]

[1] Thus Phoen 276 *clām* 'claw' dat.pl. against usual *clāwum* with /w/ analogically restored. So Campbell (1959: §236.2), a view which Brunner (1965: §128A1) describes as 'nicht nachweisbar'.

[2] But note that the regular dat.pl. of *cū* 'cow' is *cūum*. I can find no trace of ?† *cūm* cited by Campbell (1959: §236.1).

5.144 In the Angl dialects there is much more variability. On the one hand there are many forms which show loss of the unstressed vowel, but in some varieties forms where the unstressed vowel is retained outnumber those in which it is lost. In general, the more northerly the dialect the more likely it is that the unstressed vowel will be retained. Thus Ps(A) regularly has *fōn* inf., *fō* 1sg.pr.ind. alongside 115.13 *onfōu* 'I receive', but Li always has *fōa*, *hōa* inf. and similarly throughout the inflexions. For *dōn* 'give', in Ps(A) *dōn* is more frequent than *dōan*, but pl.ind. is always *dōð*, against imp.sg. *dōa* more frequently than *dō*.[1] Ru1 has inf. *dōan*, *dōa* but pl.ind. *dōaþ*, *dōþ*. In all Nbr texts the hiatus usually remains unresolved and instances of the loss of the unstressed vowel are rare and exceptional, see Brunner (1965: §429). For *gān* 'go' Merc texts regularly lose the unstressed vowel,[2] but in Nbr the most frequent spellings are of the form *gāa* alongside less frequent *gā*, and it is most probable that such spellings reflect a disyllabic form. In Nbr and Ru1, where restoration of *a* was earlier than breaking, see §5.38, the inf. of *slēan* 'slay' should be *slā*(*n*), and in Nbr texts both contracted forms, such as *slā*, and uncontracted forms, such as *slāa*, can be found.[3] Similar failures to contract can be found among nouns and adjectives, early examples being: EpGl, ErfGl 106, CorpGl 156 *-lōum* 'strap' dat.pl., also EpGl, CorpGl *-lōan* pl., ErfGl 773, CorpGl 1486 *crōus* (?for *crōas*, see Pheifer, 1974: 111) 'vine-shoots'. Typical later examples are Li *sċōeas*, Ru2 *sċōum* 'shoe' acc., dat.pl.

[1] Also occurring (7×) is *dōo*, which may be a variant of *dōa* rather than an indicator of vowel length.

[2] Ps(A) frequently has *gāa* 'I go', a form not easily explained, but which may represent a disyllabic form (< **gāu* ?), cf. Brunner (1965: §430A3).

[3] Instances of other verbs of the same type, such as *flēan* 'flay', *lēan* 'blame', *ðwēan* 'wash', are too infrequent to allow any certain conclusions, although contracted forms seem to predominate.

5.145 The hiatus sequence of diphthong + back vowel appears to run exactly parallel to that of diphthong + front vowel, see §5.134, for not only is it most frequent in those S. dialects where smoothing does not intervene but also the hiatus appears to be resolved by loss of the unstressed vowel. Typical examples, therefore, include *ġefēan* 'joys' < **ġefēa-an*, cf. *ġefēa* 'joy', *hēam* 'high' dat. and other forms similar to those cited in §5.134.[1] Again the contracted verbs show many examples of the shift, for example, class I *wrēon* 'cover', class II *flēon* 'flee', class V *sēon* 'see', class VI *slēan* 'slay'. Class 2 weak verbs, such as *twēogan* 'doubt', show contraction in 3sg.pr.ind., thus *twēoð*. There are also many other examples both with

/eo/ and /æɑ/, including for the former *sēo* 'pupil (of eye)', *hwēol* 'wheel', *swēor* 'father-in-law', and, from earlier **īo*, *twēo* 'doubt'; for the latter *ēa* 'water', *ēam* 'uncle', *ēar* 'ear (of corn)'. With all these forms the Angl forms cited in §§5.139–41 may be usefully compared.

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[1] Additionally WS has some examples where the first element was originally the diphthong **īe*, for example, CP *ætīede* (2×) alongside *ætīewde* with /w/ analogically restored, EWS *īe* 'water' gen.dat.sg., cf. LWS *ēa* with the form of the nom.sg.

5.146 By the provisions of §5.132 the hiatus sequence **ī-e* should have been resolved by loss of the unstressed vowel. The most common examples of this sequence involve the subj. of *bēon*, namely **sī-e*, the 3rd pers.pron. **hī-e* nom.acc.pl., also fem.acc.sg., WS **þrī-e* 'three', and Nbr **betwixen* > **betwī-en* 'between'. In EWS there is variation between forms with ⟨ie⟩ and forms with only ⟨i⟩, such as *hīe*, *hī*, although in Oros ⟨i⟩ spellings are very infrequent, see Cosijn (1888a: §69), and in Chron (A) the early parts show that there too ⟨ie⟩ predominates overwhelmingly, see Sprockel (1965: §10.1). In LWS, as exemplified by ÆCHom, ⟨y⟩ spellings equally predominate, with only a minority of ⟨i⟩ spellings and virtually no ⟨ie⟩ spellings.[1] The most obvious interpretation of these facts is that the hiatus sequence was resolved in WS by diphthongization to the sound represented initially by ⟨ie⟩, thus merging with, and undergoing the same developments as, other instances of that diphthong. The variation between ⟨i⟩ and ⟨ie⟩ in EWS and the dominance of ⟨y⟩ in LWS would be explained on the same grounds here as for any other instance of **īe*.[2] In Merc the normal forms of the pronoun are Ps(A) *hīe*, Ru1 *hīæ*, and of the verb *sīe*, the latter also Nbr[3] whilst Nbr usually has *hīæ*, *hīa* for the pronoun and *bitwīen* 'between'. It is usually argued that these forms must be bisyllabic, on the grounds that ⟨ie⟩ does not represent a diphthong outside EWS, see §2.37, and that BDS 2 *sīe* must be disyllabic for metrical reasons. Neither of these arguments is wholly convincing, but there is other evidence to support the traditional position. Thus we find at Ps(A) 26.4 *sīem* 'I may be', an analogical formation which could not exist without being bisyllabic, cf. forms such as *bēom* 'I am', see also Hogg (1980). Furthermore there are many other forms parallel to those cited in §5.134 where *e* appears to be protected by an inflexional juncture, such as Ps(A) *sīende* 'seeing', *fīede* 'he hated',[4] 111.8 *ġesīeð*, JnGl(Ru2) 12.40 *ġisīeð* 'he sees', JnGl(Li) 3.20 *ġefīeð* 'he hates'.[5]

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[1] One exception is ÆCHom I 11 166.13 *hīe*. There are, of course, many such spellings in other late texts which do not conform to the norms of the LWS *Schriftsprache*.

[2] For other explanations see §5.147.

[3] Alongside *sē(e)*, possibly an originally weak form, see Brunner (1965: §47A1).

[4] Alongside expected *fīode*. Similar examples occur in Nbr, such as *ġetwīedon* 'they doubted'. Presumably such examples show confusion of an unstressed vowel, and are unlikely in their context to indicate diphthongs.

5.147 The analysis presented in the preceding sections is far from certainly correct. Essentially it is as follows. Firstly, whenever the unstressed vowel in hiatus is front, then the hiatus is resolved by loss of that vowel (§5.132), although in Angl dialects that vowel could be protected by inflexional juncture (§5.133). The only exception to the above concerns **ī-e*, where diphthongization occurs in WS but not in Angl (§5.146). Secondly, when the original sequence was front vowel + back vowel, then in all dialects diphthongization occurred (§§5.135–42). Thirdly, if the original sequence was back vowel + back vowel, then in WS the unstressed vowel was lost except if the sequence was **ū-a*, when it was retained (§5.143), whilst in Angl there was much variation (§5.144). Finally, if the original sequence was diphthong + vowel, typically occurring in S. dialects only, then the unstressed vowel was lost (§§5.134, 145). In effect what is being suggested is that any hiatus sequence which can be resolved by diphthongization into the normal structure for OE diphthongs of front vowel + back vowel is so resolved, and in WS the diphthongization of **ī-e* > *īe* must be construed as a parallel process, see Campbell (1959: §234 and n2). Otherwise any unstressed vowel is lost in WS, with the anomalous exception of /ɑ/ in **ū-a*, and in Angl loss of the vowel is variable. However, Quirk (1950, 1968b) and Colman (1985) have suggested that inflexional juncture played a rather more important role in the prevention of contraction or diphthongization than has normally been assumed. Quirk claims that forms such as Nbr *sīið* 'he sees', Angl *sēende* 'seeing' (§5.134), Angl *dōa*(*n*) 'do', Nbr *sċōum* 'shoe' dat.pl. (§5.145) are the consequence of inflexional juncture permitting the hiatus to remain unresolved, cf. here PDE *sawing* against *loin*, *point* (Quirk, 1968b: 32). Furthermore, in the late OE text Hept(C) a number of spellings indicate that inflexional juncture could prevent resolution in WS also. Thus, aside from the usual spelling *bēoð* 'be' pl.pr.ind. there are forms such as Gen(C) 18.29 † *bīoð* pl.pr.ind., 9.7 † *bȳoð* imp.pl., 22.18 † *bȳoð* pl.pr.ind., 23.11 † *bȳo* sg.pr.subj., whilst for the development of the normal diphthong /eo/, alongside ⟨eo⟩ spellings occur forms such as Gen(C) 17.3 † *fūl* 'he fell', 23.6 † *lȳf* 'dear'. The monophthongal spellings do not occur with examples involving hiatus and the unusual digraph spellings occur only once with an original diphthong, namely Gen(C) 23.11 † *lȳof* for *lēof*. This implies that the hiatus sequences were left unresolved in inflexional juncture and it may even be the case that WS *dōn* is a conventionalized spelling which hides the possibility of a disyllabic form. To this we may add examples such as *slēan* which are inherently ambiguous, since it is improbable that a spelling **⟨slēaan⟩, the only reasonable method

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[5] Perhaps also to be included here are Ps(A) 8.4 *ġesīe* 'I shall see', 91.5 *ġefīe* 'I shall rejoice', instead of usual *ġesēo*, *ġefēo*, but the final *-e* is not easily explained, since *-e* is not normally found for 1sg.pr.ind. in this text.

of indicating the presence of a hiatus sequence, could ever have achieved wide currency.[1] Colman (1985: 18–21) extends Quirk's arguments to ⟨ie⟩ spellings in forms such as *sīe*, but the difficulty here, which also faces many of Quirk's arguments, is that the later developments outlined above entail that, in WS at least, diphthongization normally did take place when that was available as a method for resolving hiatus, see, however, §§5.163ff[2]. The evidence of the preceding sections makes it most likely that the principal factor in determining whether or not hiatus resolution took place was geographical – *contra* Bülbring (1902: §212) – with the more northerly dialects allowing most frequent retention of hiatus, and that morphological features such as inflexional juncture, although important, were secondary to the geographical ones.

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[1] Both Quirk (1968b) and Coleman (1985) mention forms of the *slēan* type but do not point out the graphic difficulties. See, however, Stockwell and Barritt (1951: 16) for relevant comments on trigraphic combinations.

[2] Quirk (1968b: 33–4) cites much evidence from OE poetry to show that there contracted verbs must often be analysed as disyllabic, for example, Rid 41.7 *dōð* 'do', and points out that chronological explanations are scarcely available, see further Norman (1933: 6–7), Amos (1980: 40–63).

5.148 The major morphological factor influencing hiatus sequences is inflexional juncture, and that issue is dealt with in §5.147. The principal word categories affected are the contracted verbs, both strong and weak. Amongst strong verbs contracted verbs are found in classes I, II, V, VI and VII, see Brunner (1965: §373), and such verbs are also found in both principal weak verb classes when the nom.sg. of the word ends in /x/, such as *sċōh* 'shoe'.

5.149 The relative chronology of hiatus resolution cannot always be precisely determined. At best, as when the hiatus is created by loss of intervocalic /x/, as in **seoxan* > **sēo-an*, it naturally follows that resolution must be later than loss of /x/, as is further demonstrated by equivalent forms in Angl where smoothing has taken place: **seoxan* > **sexan* > **sē-an*. Since loss of intervocalic /x/ took place at about the time of the earliest texts, but after smoothing, see §§5.100(2), 102, and, for examples of intervocalic /x/ in early texts, §7.46 and forms such as EpGl *faehit* cited in §5.133, it follows that hiatus resolution cannot usually have occurred at a time earlier than the earliest texts. But if the hiatus is from an earlier source, as in *bēo* 'I am', see §5.131, then resolution of the hiatus could have been much earlier. It seems probable that the change was earlier than changes such as WS, Merc *ĭ̄o* > *ĕ̄o*, since, see §§5.136–7, also 142, *īo* diphthongs caused by resolution participate in that change, and the same holds with reference to WS developments of **īe*, discussed in §5.146.

Disyllabic forms in poetry provide no evidence of date, see §5.147n2 and references.

(b) Unstressed vowel + stressed vowel

5.150 In addition to the above instances of hiatus between a stressed and an unstressed vowel, hiatus could also occur between an unstressed vowel and a stressed vowel. Such cases, are, however, less frequent, and appear to be restricted to the prefix *be* (< *bi-*) and the negative particle *ne* (< *ni-*). In both types the hiatus between the unstressed vowel and an immediately following stressed vowel is resolved by loss of the unstressed vowel, in other words a mirror image of the vowel loss occasioned by hiatus of a stressed vowel followed by an unstressed vowel, see §5.131. Thus we find typical examples such as *be-æftan* > *bæftan* 'after', *ne-is* > *nis* 'isn't'. The consequence of this is that the two types of loss as a result of hiatus can be approximately stated within one formulation by means of a mirror-image convention, see, for example, Lass (1984: 195), with the following result, cf. §5.131:[1,2]

$$\begin{bmatrix} \text{V} \\ \text{–stress} \end{bmatrix} \Rightarrow \emptyset \;/\; \begin{bmatrix} \text{V} \\ \text{–stress} \end{bmatrix}$$

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[1] See, however, the further comments in §5.153.

[2] Brunner (1965: §127A4) explicitly distinguishes between the present change, which he describes as elision, and the changes discussed in §§5.131–49, which he describes as contraction. His reasons are unclear to me. For an alternative interpretation see Luick (1914–40: §311A).

5.151 Examples involving the prefix *be-* include, as well as *bæftan*, *be-innan* > *binnan* 'within', *be-ufan* > *bufan* 'above', *be-utan* > *butan* 'without'.[1] Resolved forms predominate over unresolved forms, of which the following are examples in the major texts: CP 153.18, 155.20 *beinnan*, CP (2×), Or (13×), Chron(A) (2×) *beæftan*, CP 409.25 *biæftan*. It is notable that *bæftan* is not found in the principal EWS texts, and that no unresolved forms of these words are found in the works of Ælfric or Wulfstan, see further §5.154.

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[1] Not to be included here is LibScProlMt(Li) 1 *booflić*, presumably an error for *behōflić* 'hungry', see Campbell (1959: §354n1). It is also difficult to see how *blinnan* 'cease' < **bi-linnan* can be included here.

5.152 The circumstances in which the element *ne* appears in hiatus may be morphosyntactically as well as phonologically controlled, for the hiatus only occurs as a result of procliticization of the particle. In general procliticization takes place only with quantifying adverbs and pronouns, and with a restricted group of verbs. Where the following word is an adverb or pronoun, then, in addition to the possibly syntactic restriction to quantifier-type words, that word must also begin with a vowel, as in *nǣniġ* 'no one' < **ne-ǣniġ* < **ni-ǣniġ* < **ni ǣniġ*.[1] Where the following word is a verb, then only a very restricted set of verbs, all of high frequency, show the cliticization and subsequent hiatus resolution.[2] These verbs are listed below. Examples of adverbs and pronouns which typically show the above processes are: *nā*, *nō* 'never', *næfre* 'never', *nealles* 'not at all', *nāwiht* 'not', *nān* 'no, none', *nǣniġ* 'no, none', *nāðor* 'neither', *nāwiht* 'nothing', see further Mitchell (1985: §§436–46, 1128). Amongst verbs the simplest examples are: *nis*, *nys* 'isn't' < **ne-is*, and *nāhte* 'hadn't' < **ne-āhte*. Nbr and Ru1 have *nam* 'amn't' < **ne-am*,[3] whilst Ps(A) has *neam* < **ne-eam*, also occurring at LkGl(Li) 18.11, but *neom* is not found in EWS and is extremely rare in LWS, for example, at ÆCHom I 8 126.8. Cliticization also occurs when a verb originally begins with either [h] or /w/, the initial consonant being lost. With loss of initial [h] we find all forms of *nabban* 'haven't' < **ne-habban*. With loss of initial /w/ we find *næs* 'wasn't', *nāt* 'didn't know', *nolde* 'wouldn't' and in Nbr *nelle*, *nellað* imp.sg.,pl. glossing Lat *noli*(*te*). However, when the original sequence was **ni-wi*, then /w/ caused rounding at the time of its loss, giving *ny*-, and hence we find *nylle* 'won't' < **ni-wille*, and similarly *nyllað* and negative forms of *witan* 'know' such as *nyton*, *nyte*, *nyste*. Such forms are mainly WS, Kt, and the Ps(A) dialect of Merc and are much less common in other Angl texts, although examples are found. In LWS forms of *nyllan* 'won't' usually develop to *nel*-, thus ÆCHom has no examples of *nyle* or *nyllað*, and only one example of *nylle* (ÆCHom II 9 76.133). Forms with -*e*- are rare in EWS, but CP has *nellað* 3×, Or 2×, and CP has *nele* 2×, Or 1×. The explanation of the LWS development is uncertain.[4]

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[1] Mitchell (1985: §243) quotes the rare John (WSCp) 1.21 *niċ* 'not I' < *ne iċ*. Although this is certainly the etymological origin, the translation could well be 'no', cf. the versions in both AV and NEB. Other instances of *niċ*, at John (WSCp) 18.17, ÆColl 110, MtGl(Ru1) 13.29, 25.9, clearly translate as 'no'. Thus OE does not appear to provide instances of cliticization of *ne* to a personal pronoun, and *niċ* is best analysed as an ossified form to be added to the examples from OHG and OSax cited in Levin (1958: 492).

[2] Of course cliticization is only proved in cases where hiatus subsequently occurs and is resolved. Sequences such as *ne sċeal* 'must not' could well show proclisis, but there is no direct evidence to demonstrate this.

[3] Ru1 also has *næm*. But the positive form is always *eam*, cf. Li *am*, and the monophthongization in Ru1 suggests a low stress form, see further §5.153.

[4] Campbell (1959: §265) reasonably suggests it is a special low stress development. Brunner (1965: §428A2) suggests that the LWS forms show the vowel of the particle *ne* rather than of the verb root, but that is clearly implausible.

5.153 Although §5.152 would appear to suggest that vowel loss in hiatus of an unstressed vowel followed by a stressed vowel is controlled by nonphonological factors, this is probably somewhat misleading. The cases presented there are better explained by assuming that cliticization takes the form of the negative particle being attached to an element which has low phrasal stress, for quantifying adverbs and pronouns can often have such low stress, and it is probable, although not finally determinable, that the same would apply to the verbs to which the clitic can be attached, see Levin (1956: 37) and the comments in Mitchell (1985: §1131). Once cliticization occurred, then hiatus resolution could proceed freely. Clear evidence that low stress conditions prevailed comes from two sources: (1) the otherwise unusual loss of initial [h], /w/; (2) the failure of lengthening to occur in resolution of a hiatus sequence such as **ni-is*. Other evidence has been mentioned above, such as Ru1 *nam*, *næm* < **ne-eam*, see §5.152n3.

5.154 Chronologically perhaps the most that can be discerned is that hiatus resolution of these sequences was already possible by the time of the earliest texts, since examples are already frequent in EWS, see §5.151. But, as the discussion there shows, hiatus resolution is even more frequent in LWS, and the resolved form *bæftan*, frequent in LWS, is not found at all in EWS. Similar, but less important, is the occasional LWS occurrence of *neom*, not found in EWS. This suggests that the vowel loss discussed here became increasingly frequent during the period of the written texts, and perhaps commenced at much the same time as the processes discussed under §§5.131–49. The picture is, however, made more complex by the fact that cliticization of *ne* appears to have been subject to dialectal variation. Thus Levin (1958: 495) produces figures to show that in EWS 'negative contraction' occurs in *c*.97 per cent of examples, in Merc in *c*.69 per cent, and in Nbr in *c*.61 per cent. The reason for this is presumably the greater strength of junctural boundaries in the Angl dialects, see §5.147. Interestingly Levin's figures for Ælfric and Wulfstan suggest that contraction takes place in about 99 per cent of cases in the former, and always in Wulfstan, see Mitchell's (1985: §1130) comments on Levin (1958). These results confirm that this type of hiatus resolution became more frequent in later texts, at least in WS.

XIV Merger of /io/ and /eo/

5.155 From about the ninth century onwards, see §5.162, the long and short diphthongs /io, ı͝o; eo, e͝o/ began to merge in most OE dialects. The merger is seen first in EWS, is most extensive in LWS, and is also well demonstrated in Merc, but scarcely at all in Nbr. The situation is somewhat different in Kt, see §5.160. The result of the change is that where in EWS an apparent contrast can be seen between /io, ıŏ/, as in *betwīox* ‘between’, *tiohhian* ‘consider’, and /eo, eŏ/, as in *cnēo* ‘knee’, *feoh* ‘cattle’, in LWS all such forms are regularly written with the digraph ⟨eo⟩, that is, *betwēoh, teohhian, cnēo, feoh*. Both these later spellings and the development of the diphthongs in ME to a mid front vowel (initially rounded, later unrounded) imply that the change involved a lowering of the first element of /io, ıŏ/ so that those diphthongs merged with /eo, eŏ/, see, for example, d’Ardenne (1936: 192–3). Typical examples of the change are frequent and derive from all sources of /io, ıŏ/. Thus from original /io/ we find *līode* > *lēode* ‘people’,[1] from /io/ by breaking *līoht* > *lēoht* ‘light’, by diphthongization in hiatus *bīo* > *bēo* ‘be’ subj.sg.; from /ıŏ/ by breaking we find *liornian* > *leornian* ‘learn’,[2] by back umlaut *hiora* > *heora* ‘their’.[3] For examples where original /eo, eŏ/ is spelled ⟨io⟩ see §§5.157ff. Since it is certainly the case that the second element of all these diphthongs had already lowered to /o/ by the time of the merger, see §§5.46, 6.58, the process is undoubtedly one by which the first element of the diphthong assimilated in height to the second element.[4] More importantly, however, the change was one which involved complete phonemic merger, and the consequent reduction of the OE diphthongal phoneme system to /eo, eŏ/ and /æ, æ̆ɑ/ only. The change can be stated approximately as follows:

$$\begin{bmatrix}\text{V}\\ \text{+syll}\end{bmatrix} \Rightarrow [\text{–high}] \ / \ \underline{\qquad\qquad} \begin{bmatrix}\text{V}\\ \text{–syll}\\ \text{–high}\end{bmatrix}$$

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[1] For discussion of such forms, often said to have undergone ‘Half-umlaut’, see §5.84.

[2] As with *lēode*, etc., forms such as *leornian* may simply show failure of *i*-umlaut rather than merger of the diphthongs.

[3] *Hiora* exists alongside *hiera, hira*, forms which show failure of back umlaut, see §5.104n8.

[4] According to Cosijn (1888a: §38) this explanation is first due to Mahlow, but I can find no further details.

5.156 In EWS there is considerable variation between texts.[1] In CP (both C and H) original *ī̆o* is spelled both ⟨io⟩ and ⟨eo⟩, the latter predominating but the former still quite frequent. Typical examples for *īo* < Gmc **iu* are, *bīodan, bēodan* ‘command’, the former occurring 2× in CP(C), 4× in CP(H), the latter 13× in C, 17× in H, whilst *þīod* ‘people’ occurs 4× in H, 1× in C, against *þēod* 1× in C. The loan-word *dīofol* ‘devil’ occurs as such 25× in H, 13× in C, and as *dēofol* 3× in H, 5× in C. In examples where *īo* is due to contraction ⟨io⟩ sometimes predominates, thus CP(H) has 77× *hīo* pers.pron. against *hēo* 7×, but figures for *bīon* and *bēon* are roughly equal in the same ms. It is difficult to draw any conclusions from these figures.

Similar variations occur with *īo* from breaking, for example, *lēoht* predominates over *līoht*. Alongside such forms exist examples of *ēo* < Gmc **eu* or by diphthongization in hiatus or by compensatory lengthening of /ē̆o/ < */e/ by breaking. These are most usually spelled ⟨eo⟩ in CP, but there are examples of ⟨io⟩, such as CP(H) 347.24 *wildīorliċ* 'brutish', CP(H) *bebīod*(-) (2×) 'command', and many forms developed from hiatus, such as -*sīon* perhaps more frequently than -*sēon* 'see', also *plīon* 'risk', *ġefīonde, ġefīoð* forms of 'rejoice', CP(C) (only) *fīos* (2×) 'property' gen.sg., *twīon* 'doubt' acc.sg. In Or generally ⟨io⟩ spellings are less frequent than in CP, but the following examples of ⟨io⟩ for original *ī̆o* are found:[2] f59 *hiora* (107×, alongside *heora* 222×) pers.pron., *hīo* (41×, alongside *hēo* 41×) pers. pron., *sīo* (25×) dem., *dīofol* (12×, alongside *dēofol* 7×),[3] *bīon* (3×) 'be', *þrīo* (3×) 'three', *siolfre* (2×) 'silver', *siofoþe* (1×) 'seventh', ⟨io⟩ for original *ē̆o* is very uncommon, the only examples being *īower* (5×) 'your', *elþīod*- (2×) 'exile',[4] and *dīor* (1×) 'animal'.[5] The most important feature of Chron(A) is that the annals from 893–5 of 'Parker II'[6] show *hiora* 8×, *sīo* 6×, but elsewhere in Parker I, II such forms are either rare (*sīo*) or non-existent (*hiora*), see further Bately (1980: xliii–xliv), Sprockel (1965: §1.3.4).

[1] The figures below for CP are taken from the relevant sections of Cosijn (1888a). Cosijn's work is valuably supplemented on specific texts by Kim (1977) for CP(H), Bately (1980) for Or and parts of Chron(A), and Sprockel (1965) for Chron(A).

[2] The figures for *heora, hiora* are taken from MCOE, which is based on the edition of Sweet (1883). For the comparable figures in Bately's edition see Bately (1980: xliii–xliv). The differences do not, however, lead to different conclusions.

[3] In view of Nbr *dīofol* and the frequency of similar spellings in EWS, it is better to assume that this word is from Gmc **iu* than from **eu*, as assumed by Bately (1980: xliii), see Campbell (1959: §492).

[4] But this word could show *i*-umlaut of *ēo*, see §§5.155, 84.

[5] Possibly to be included here is Or 126.6 *swiostor*, but cf. Campbell (1959: §210.2n3).

[6] Parker II = the annals of Chron(A) 892–912, apparently the work of the scribe of the Lauderdale ms. of Or, see Bately (1980: xxxix), Horgan (1963).

5.157 In LWS earlier *ī̆o* and *ē̆o* are both written ⟨eo⟩. Thus amongst the more common words I have found only the following examples of ⟨io⟩ in ÆCHom: I 220.8 *bīo* 'be' imp., I 172.8 *dīofles* 'devil' gen.sg., I 30.5, 160.13 *hīo* pers.pron., I 26.34 *hiora* 'their'. In other late texts, such as some of VercHom, ⟨io⟩ spellings are less rare, but it remains clear that in Ælfrician texts ⟨eo⟩ spellings were completely dominant.

5.158 In the early Merc glossaries *ī̆o* and *ē̆o* usually remain distinguished. Thus in EpGl, ErfGl the only examples of original **iu* written with ⟨eo⟩ are EpGl 620 *burglēod* 'citizen' and the doubtful ErfGl 229 *ġelēod* 'crowd' (? see Pheiffer, 1974: 74), both of which may simply show failure of *i*-umlaut.

EpGl has 5 examples of ⟨io⟩ for **eu*, such as 817 *buturflīoġae* 'butterfly', paralleled 4× by ErfGl, see Pheiffer (1974: §41). In CorpGl the distinction between *ī̆o* and *ē̆o* is reasonably well preserved, but note 225, 1976 *brīosa* 'gadfly', 1759 *cnīoholen* 'knee-holm', 1405 *crīopunge* 'creeping' dat.sg., 1125 *tīonan* 'injuries', 510, 1470 *ġestrīon* 'property', and especially the compound 1672 *brīostbiorg* 'breastplate', where the second element shows ⟨io⟩ for the breaking of */e/.[1] There are also doublets such as 923 *hlēor*, 86 *hlīor* 'face', 900 *ġetrēuuade*, 857 *ġetrīowad* 'allied', which imply that the distinction was nevertheless becoming blurred, see Kuhn (1939: 10) and references. CorpGl, unlike EpGl, ErfGl, see §5.104(2), has many examples of back umlaut, and about a quarter of such examples involving */i/ are spelled ⟨eo⟩ (Kuhn, 1939: 10). Typical examples include 2053 *beġeonan* 'on the other side', cf. EpGl 1041 *biġinan*, 770 *seotol* (for *sweotol*) 'evident', CorpGl 5 *neoþouard* 'below'. In Ps(A) earlier *ī̆o* and *ē̆o* can both be spelled ⟨io⟩ or ⟨eo⟩, thus both *nīowe* and *nēowe* 'new' and *līofa* and *lēofa* 'dear'.[2] But ⟨eo⟩ spellings appear to predominate, especially before /r/, see Sievers (1900: 36–9), also Zeuner (1881). The only examples of ⟨io⟩ for *eo* from breaking or back umlaut in Ps(A) are: 77.3 *fiolu* 'many', 77.26 *hiofene* 'heaven' dat.sg., and, perhaps, 32.13 *hiefene* showing reduction of the second element. There are, however, frequent examples of ⟨eo⟩ for breaking and, especially, the back umlaut of */i/, such as *sċeopu* 'ships', forms of *clipian* 'call', such as *cleopiu*, where indeed ⟨io⟩ is not found. The ME evidence, for which see d'Ardenne (1936: 192–3), confirms the implication that here, as in WS, the diphthongs fell together in /eo, ē̆o/. In Ru1 the predominance of ⟨eo⟩ spellings is greater still, although in cases of back umlaut of */i/ except before /i/ ⟨io⟩ predominates in the ratio of 5:3 (Sievers, 1900: 36, after E. M. Brown, 1891). Before /r/, as in Ps(A), ⟨eo⟩ spellings predominate, for example, *heora* 84× against *hiora* 5× (E. M. Brown, 1891: §33d). *Ðīofes*, *ðīofes* 'thief' shows ⟨io⟩ for original **ēo*.

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[1] Note also Lit 5.1 *iorðan* 'earth' (alongside *fīorðan* 'fourth').

[2] For occasional ⟨ea⟩ spellings of these diphthongs see §5.45 and n3.

5.159 In all Nbr texts the distinction between *ī̆o* and *ē̆o* is well preserved. Most exceptions are trivial, but some oddities are noteworthy. Thus Li has *frēond* 'friend' 13×, *frīond* 16×, and Ru2 has *frēond* 11×, *frīond* 9×, but both texts always have *fīond* 'enemy', see Sievers (1900: 52). The contrast between Li *seofo*, etc. 'seven' and Ru2 *siufu* arises because the former is from an uninflected, the latter from an inflected, form. For fuller details of the position in these texts see Sievers (1900: 26–35, 49–54).[1]

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[1] The regularity of *ēode* 'he went' implies a development from Gmc **eu*, as first noted by Sievers (1900: 52), see Luick (1914–40: §261A3 and references) and, for a summary of more recent studies, Bammesberger (1979a: 44).

5.160 In Kt the position was slightly different from that in the other dialects. In the ninth-century charters there are a good number of examples where the first element of *ē̆o* has been raised, typical examples of long diphthongs being: Ch 1195, 1197 *bebīade* 'I command', Ch 1204 *Ċīalulfe* personal name, Ch 1188, 332 *īow* 'you', Ch 1510 *līofast* 'dearest', Ch 1188 *-prīost* 'priest', Ch 1188, 1482 *ðīow* 'servant'; typical examples of short diphthongs are: Ch 1185 *aġiaban* 'give', *fiah* 'property', Ch 1197 *hiabenliċe* 'heavenly', Ch 1482, 1510 *siolf*(-) 'self', Ch 1197 *wiaralde* 'world', Ch 41 *wiorð* 'property'.[1] There are also examples where ⟨eo⟩ (⟨ea⟩) is written for earlier *io*: Ch 1508 *awreotene* 'written down', Ch 1195 *weada* 'wood' gen.sg.[2] In the later OccGl 49 *īo* and *ēo* seem to have merged as /io/, for whilst original *īo* is almost always so spelled, a rare exception being 349 *hrēosþ* 'it falls', cf. 386 *ahrīosð*, original *ēo* is frequently spelled ⟨io⟩, in the proportion 3:1 in favour of ⟨io⟩ according to the figures in Williams (1905: §15). In the case of short *io* and *eo* breaking of */e/ is most often spelled ⟨eo⟩ (⟨ea⟩) with only occasional ⟨io⟩ as in 1199 *ċiorl* 'man', whilst the few examples of breaking of */i/ are spelled ⟨io⟩, such as 526 *stiorċe* 'calf'. The examples of back umlaut in the text strongly imply that the short diphthongs had merged as /ē̆o/, since ⟨io⟩ for *eo* is rare, and ⟨io⟩ for *io* is absent, see Williams (1905: §§42, 44). This suggests that in Kt the tendency was for *īo* and *ēo* to merge as /io/, but for *io* and *eo* to merge as /ē̆o/, as confirmed by the developments in ME, see Jordan (1974: §85).

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[1] For the ⟨ia, ea⟩ spellings see §5.43.

[2] Perhaps of special interest is Ch 1171 † *trīow* 'tree', the original charter being dated 685x694. But the copy is a later one and therefore the spelling need only reflect the situation in tenth-century Kt.

5.161 Any morphological factors involved in this change would be expected to lead to levelling of forms. But the change itself, since it is a complete phonemic merger, would have exactly the same effect. Therefore there is no evidence of any analogical interference in the change.

5.162 The evidence of the EWS texts is that the merger of *ī̆o* and *ē̆o* was already well under way by the end of the ninth century, for, see §5.156, even in CP there is considerable confusion between ⟨io⟩ and ⟨eo⟩ spellings. This might imply that the merger had taken place in the ninth century and that the scribes of CP had some knowledge of the earlier distinction no longer present in their own speech or that of the dictators of the translation. The evidence of Or and also Chron(A) would suggest that by the early tenth century the two diphthongs had completely merged together as /eo, ē̆o/, and it is certain that in the language of the best Ælfrician mss. there is virtually no sign of the earlier distinction, although it may well have persisted in some southern sub-dialects, see §5.157. The evidence from

Merc ties in with the above, for there are scarcely any signs of the incipient change in the earliest glossaries, slightly more in CorpGl, and the merger appears to have been fully under way in the dialect of Ps(A) and progressed almost to completion by the time of Ru1.[1] In Kt the ninth-century charters indicate that the changes had already started, even if they were to follow a rather different pattern. Only in Nbr is the merger delayed until after the end of the OE period. We may therefore conclude that the merger was essentially a ninth-century phenomenon, confined to the S and Midl, and perhaps, given the evidence of Kt and occasional examples in the early Merc glossaries, starting off in the east or south-east of the country.

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[1] Flasdieck (1930) argues that in WMerc the change cannot have been earlier than 800.

XV West Saxon developments of high front vowels and diphthongs

(a) The development of ī̆e

5.163 One of the most distinctive features of EWS texts is their use of the digraph ⟨ie⟩ for sounds which are the developments of: (1) palatal diphthongization of */e(ː)/, see §§5.49, 53; (2) *i*-umlaut of the diphthongs */æɑ, ǣ̆ɑ, io, ıŏ/ and, probably, */eo, ĕŏ/, see §§5.74, 5.82–4. Additionally, resolution of the hiatus found in forms such as **sī-e* 'be' subj.sg. appears to result in monosyllabic *sīe*, in which case ⟨ie⟩ must be a digraph, see however, §§5.146–7.[1] The use of ⟨ie⟩ as a digraph is almost solely WS, and possible instances of the same use in nWS are considered separately in §5.169, see also §2.37. There were chronological as well as dialectal restrictions on the use of the digraph, for even in EWS forms where ⟨ie⟩ would be expected etymologically are often spelled ⟨i⟩ or ⟨y⟩, and in LWS ⟨ie⟩ is regularly replaced by ⟨y⟩ or ⟨i⟩. In EWS the development is normally to ⟨i⟩ and the shift to ⟨y⟩ is mainly restricted to positions between a labial consonant and /r/; but in LWS the normal development is to ⟨y⟩ and the shift to ⟨i⟩ occurs principally before palatal consonants. Thus we find the following three types of development: (1) 'normally': *hīeran* > EWS *hīran*, LWS *hȳran* 'hear'; (2) between a labial and /r/: *wiersa* > EWS, LWS *wyrsa* 'worse'; (3) before a palatal consonant: *mieht* > EWS, LWS *miht* 'might'. The development of *ī̆e* is therefore of importance not merely because it distinguishes WS from the nWS dialects, but also because it is perhaps the principal isogloss distinguishing EWS and LWS. Notwithstanding its importance, the issues surrounding the developments have never been satisfactorily resolved.[2] In approaching this problem the developments to /y(ː)/ between a labial and /r/ in EWS and to /i(ː)/ before a palatal in LWS are crucial. It is most probable that a form such as *wyrsa* in EWS indicates /y/ and that a form such as *miht* in LWS indicates /i/, for the use of ⟨y, i⟩ here does not appear to deviate from the use of these graphs elsewhere. For the EWS case it can safely be inferred that the environment between a labial and /r/ promotes rounding, both on general phonetic grounds and from a comparison with other changes such as combinative breaking, see §§5.28–31. From the LWS case it can equally safely be inferred that a following palatal consonant would cause monophthongization, again both on phonetic grounds and from a comparison with such changes as palatal umlaut, see §§5.113ff. Hence it follows that it is proper to suggest that EWS and LWS contrast in the normal development of *ī̆e*, in that in the former it is to /i(ː)/, in the latter to /y(ː)/. To account for these divergences and shifts we could easily suppose that ⟨ie⟩ represented a diphthong such as /iə, ıə̆/ with some rounding of the second element, as suggested by Luick (1914–40: §191), or /iy, ıy̆/ as suggested by Colman (1985), see below and §2.36.[3] We would then have to suppose that in the dialects underlying EWS there was an early monophthongization to /i(ː)/ except in the specified circumstances, and that similarly in the dialects underlying LWS there was normally monophthongization to /y(ː)/. Thus in EWS there would be simple loss of the second element,[4] whilst in LWS the loss of the second element would cause its rounding to be transferred to the first element. It is important to note that we cannot suppose a development of the form *hīeran* > EWS *hīran* > LWS *hȳran*, since normal EWS /iː/ does not give LWS /yː/, long vowel forms such as ÆLS(Basil) 379 *wrȳt* 'write' imp.sg. being rare, but see §5.173n1. On the other hand, one plausible interpretation of ⟨ie⟩ resulting from palatal diphthongization of */e(ː)/ is that it represents /i(ː)/, see §5.49n4. One plausible interpretation of ⟨ie⟩ due to *i*-umlaut is that it represents /iy, ıy̆/, see §5.74. If the hiatus sequence **i-e* is resolved by diphthongization, it is most natural to assume that the resultant diphthong is /iːe/, but see §§5.146–7. Of these three values for ⟨ie⟩ the last is least likely, for the reason given in n3 below and in §5.147. If the interpretation /iy, ıy̆/ is accepted, as argued by Colman (1985) on the grounds of both *i*-umlaut and the LWS developments, it seems impossible to account for the ⟨ie⟩ spellings caused by palatal diphthongization.[5] Even if Luick's interpretation is accepted it must be noted that he supposes that /iə, ıə̆/ is from earlier */iy, ıy̆/, see Luick (1914–40: §191A4). This accounts for the slight rounding of the second element but then faces exactly the same difficulties as does Colman's proposal. It would seem, therefore, that although the weight of the evidence points to the historical development suggested by Luick, the situation has not been satisfactorily resolved. But Luick's suggestions imply that the later development of *ī̆e* would be loss of the second element with, in LWS only, compensatory rounding of the first element. The EWS developments between a labial and /r/ and the LWS developments before a palatal would necessarily precede the monophthongization. The general trend can be approximately characterized as follows:

$$\begin{bmatrix}\text{V}\\ +\text{syll}\\ +\text{high}\\ -\text{back}\end{bmatrix}\begin{bmatrix}\text{V}\\ -\text{syll}\\ +\text{high}\\ -\text{back}\\ +\text{rnd}\end{bmatrix}\Rightarrow\begin{bmatrix}\text{V}\\ \langle+\text{rnd}\rangle_{\text{LWS}}\end{bmatrix}\varnothing$$

[1] Campbell (1959: §229) suggests three other sources for *ī̆e*. Firstly, from breaking due to metathesis, for example, *biernan* 'burn', see §5.26, although these spellings could also be interpreted as inverted spellings for *birnan*. Secondly, a number of cases where ⟨ie⟩ rather than ⟨io⟩ is found for the back umlaut of */i/, such as *tieling* 'effort', but these seem more certainly explained as inverted spellings for *tilung*, etc. Thirdly, EWS has, alongside forms such as *sindon* 'they are', *siendon*, etc. Although these could be explained as inverted spellings, it would then become difficult to explain LWS *syndon*, etc. These last cases are discussed under §5.173.

[2] An alternative account of the sounds represented by this digraph is offered in §5.164. The accounts differ most crucially in their starting-points, and, from a synchronic point of view, are identical for at least LWS.

[3] It should be emphasized that a literal interpretation of ⟨ie⟩ as representing /ie, iĕ/ is scarcely available, for then it would be impossible to explain the LWS development to /y(ː)/. Kuhn (1961) does, however, come close to this interpretation.

[4] Since short diphthongs are monomoric, see §2.29, loss of the second element will not result in compensatory lengthening. In the case of long diphthongs the asociated two morae will come to be associated with a long (bimoric) vowel.

[5] The position is simpler for Colman since she does not accept the phonological reality of palatal diphthongization, see Colman (1985: 12–17) and, for the contrary view, §5.49 above.

5.164 It will be clear from the discussion in §5.163 that a diphthongal interpretation of original *ī̆e* is problematic. As the earlier discussion of the *i*-umlaut of diphthongs shows, see §§5.74, 82–4, it is possible to interpret that change as having a monophthongizing as well as raising effect, especially in the light of the Angl shift of */æɑ, ǣ̆ɑ/ > /e(ː)/ in the same circumstances.

Similarly there is definite evidence that palatal diphthongization of */eː/ could, at least in Nbr, involve merely raising rather than diphthongization, see §§5.49, 54. Finally, EWS forms such as *sīe* 'be' subj.sg. could well be interpreted as diphthongal rather than monophthongal, see §5.147. If original *ī̆e* were monophthongal, then the vowel represented could only be high and front, since it results from fronting and raising processes, but it could not be equivalent to /i(ː)/ or /y(ː)/, since it develops differently from these sounds in both EWS and LWS. Consequently it could only represent a vowel intermediate between [i(ː)] and [e(ː)], say [ï(ː)]. In these circumstances ⟨ie⟩ would be a compromise spelling indicating a vowel half-way between those represented by ⟨i⟩ and ⟨e⟩.[1]

[1] See here Lewenz (1908) and, more recently, Kim (1984: 28–9). Similar views on EWS *ī̆e* can be found in Luick (1914–40: §263), Brunner (1965: §22), Daunt (1939), Reskiewicz (1953), Quirk and Wrenn (1957: §193). These writers assume that EWS *ī̆e* derived from an original diphthong, but there is no absolute necessity for such an assumption. For further reasons for assuming a monophthongal interpretation see §5.171.

5.165 In EWS *ī̆e* from whatever source is spelled both ⟨ie⟩ and ⟨i⟩. Thus we find from *i*-umlaut of */æɑ/ both *ġehīeran* and *ġehīran* 'hear', for *i*-umlaut of */ǣ̆ɑ/ *ċierran* and *ċirran* 'turn', for *i*-umlaut of */ıŏ/ *stīeran* and *stīran* 'steer', for *i*-umlaut of */ıŏ/ *ġesiehð* and *ġesihð* 'he sees', for palatal diphthongization of */eː/ *ġīet* and *ġīt* 'yet', for palatal diphthongization of */e/ *beġietan* and *beġitan* 'obtain', from resolution of hiatus *sīe* and *sī* 'be' subj.sg. In the more dubious instances of half-breaking, see §5.163n1 and references, we find *biernan* and *birnan* 'burn', and for back umlaut of */i/ *tielung* and *tilung* 'effort'. For the relative frequency of these spellings in various EWS texts see especially Cosijn (1888a), Kim (1977: 207–21), and Bately (1980: xlii–xliii). The most notable variations from this, apart from ⟨y⟩ spellings, for which see §5.166, involve cases of back umlaut, for which see §5.104n8, and the *i*-umlaut of */io, ıŏ; eo, eŏ/, for which see §5.84. Other forms such as *ċerran* 'return' may be due to Merc influence. Alongside the variation between ⟨ie⟩ and ⟨i⟩ for original *ī̆e*, there occurs variation between ⟨i⟩ and ⟨ie⟩ for original /i(ː)/. Typical examples of ⟨ie⟩ for /iː/ include *rīeċe* 'kingdom', *ġīetsian* 'cover', *īedel-* 'idle', *hīered* 'household', beside *rīċe*, etc.; similar examples of ⟨ie⟩ for original /i/ are *bieter-* 'bitter', *briengan* 'bring', *ċieriċean* 'churches', *hiene* 'him', beside *biter-* etc. Generally speaking ⟨ie⟩ for *ī̆e* is rather more frequent than ⟨ie⟩ for /i(ː)/, and ⟨i⟩ for /i(ː)/ more frequent than ⟨i⟩ for *ī̆e*, but there are exceptions.[1] For the conclusions to be drawn from these spelling variations see §5.171.

[1] Amongst exceptions to be noted are the frequent use in Or of *hiene* (231×) rather than *hine* (16×) and the restriction of ⟨ie⟩ for /i(ː)/ in Chron(A) to (a minority of) forms of *hine*, *hire*, and *behinan* 'on this side'. The most frequent use of ⟨ie⟩ in EWS is found in CP(H).

5.166 A regular exception to the above development in EWS occurs when *ī̆e* is preceded by a labial, most frequently /w/, and followed by /r/. In this environment ⟨ie⟩ alternates with ⟨y⟩, as in *wyrsa* 'worse', *wyrð* 'he becomes', *hwyrfan* 'turn', *wyrpð* 'he throws', alongside *wiersa*, etc. and even alongside ⟨i⟩ spellings, such as *wirsa*. Examples where the labial consonant is not /w/ include: CP 69.22 *byrhto* 'brightness', CP(C) † 72.13, Or 21.6 *byrð* 'he carries', *byrnan* 'burn' and forms CP 1×, Or 2×, Or *fyr* 'far' and forms, frequently, CP(C), Or *fyrste* dat. (2×). The restriction of such examples to short vowels is a product of the environment, for other evidence shows that the change theoretically affected *īe* also. In Or ⟨y⟩ spellings occur more extensively than in other EWS texts, examples in other environments including: 83.17 *abylgþe* 'injury' dat.sg., 93.24 *sċyll* 'scale', *yldra* 'older' and related forms, 53.2 *ċyrre* 'occasion', 31.44 † *besyrede* 'he deceived', and, with *īe*, (-)*sċȳt* 'he shoots', *aþrȳtton* 'they tired out', note also CP 455.30 *tȳdra* 'weak'. Occasional examples of ⟨ie⟩ for original *ȳ̆* are, in CP, 169.11 *īeðeġende*, cf. CP(C) 168.11 *ȳðeġende*, 251.24 *hwīe* 'why', and, in Or, 135.29 *afielde* 'one filled with', 154.24 *awierġed* 'strangled'.

5.167 In LWS the usual development of original *ī̆e* is to ⟨y⟩, hence not only *wyrsa*, etc., cf. §5.166, but also *ġehȳran* 'hear', *ċyrran* 'turn', *byrnan* 'burn', and similarly the other examples cited under §5.165. However, forms where back umlaut fails are not so treated, hence Ælfric has *tilung*, *teolung* 'effort', suggesting that the EWS ⟨ie⟩ spellings are for /i/. The principal other exceptions[1] to the development to ⟨y⟩ are examples where *ī̆e* stands before a palatal consonant, for there ⟨i⟩ spellings are normal, such as *miht* 'might', *niht* 'night', *hīġ* 'hay', etc.[2]

[1] Gradon (1962: 70–2) suggests that the development to ⟨i⟩ spellings may also have occurred finally, as in *hī* 'they', the normal form in Ælfric alongside occasional (most often in ÆHom) *hȳ*, cf. EWS *hī*, *hīe*. However, *sȳ* 'be' subj.sg. is the normal form and *sī* occurs only sporadically in Ælfric. For comparison, in WHom *hȳ* outnumber *hī* about 2: 1 and *sī* occurs only twice, at WHom 8b.76, 84. It seems less likely that these variations are caused by phonological change than by morphological factors, with LWS *hī* directly derived from EWS *hī*, see 5.146–7 and, for LWS *hīe*, 5.146n1. For LWS *hȳ*, *sȳ*, see also §5.146.

[2] For the status of occasional exceptions to the above, see firstly Gradon (1962).

5.168 The considerable confusion of spellings in EWS, especially inverted spellings such as *rīeċe*, see §5.165, make it certain that original *ī̆e* had already monophthongized to some kind of high front vowel by the time of these texts, if it was not originally monophthongal, as discussed in §5.164. If the LWS forms are to be derived directly from EWS, then the occasional ⟨y⟩ spellings cited in §5.166 and especially frequent in Or would imply that that high front vowel began to acquire rounding or some similar phonetic feature by the beginning of the tenth century. But an assumption of continuity between EWS and LWS implies that whatever values were represented by ⟨ie⟩ in EWS, they could not have been identical to those represented by ⟨i⟩, and there is no necessity to assume that the sounds represented originally by ⟨ie⟩ were not identical in EWS and LWS, see §§5.170ff. Thus the evidence of spellings of original *ī̆e* alone can do no more than determine that the sounds represented by those spellings were already monophthongal by the time of Alfred. For further discussion of this and related matters see §§5.170ff.

5.169 Outside WS the digraph ⟨ie⟩ is only rarely used. Many apparent cases are better interpreted as hiatus sequences where ⟨e⟩ represents an unstressed syllabic vowel, such as Ps(A) *fīede* 'he hated' alongside *fīode*, see §§5.83n5, 146 for this and similar forms. There are, however, cases where ⟨ie⟩ seems to be a digraph, such as Ps(A) 32.13 *hiefene* 'heaven' dat.sg., 32.15 *ġehiewade* 'he formed', *ðīeda* 'people' gen.pl. (3×), 30.21 *ġeðīeda* 'language' gen.pl., and the slightly doubtful OccGl 49.1152a † *forbīet* 'he forbids'. It is notable that the certain cases of digraphic ⟨ie⟩ outside WS are restricted to Ps(A).[1]

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[1] Additionally EpGl has 595 *fierst* 'roof', 933 *orfiermae* 'squalid', cf. ErfGl *orfermae*, 990 *ġeoruuierdid* 'disgraced' (also ErfGl), all with *i*-umlaut of */io/ from breaking, and 983 *hunhīeri* 'fierce', cf. ErfGl *unhȳri*, with *i*-umlaut of Gmc **iu*. But these forms are probably best interpreted as due to some kind of WS influence, see Pheiffer (1974: §90) and references.

(b) The development of /i(ː)/ and /y(ː)/

5.170 Already in EWS there are some signs of a tendency for /i/ to appear as ⟨y⟩ in a number of environments. The most usual cases involve either a preceding /w/, as in *nylle* < *ne wille* 'I don't want', see §5.152, a preceding /r/, as in *ryht* 'right' < *riht*, or forms which are likely to have been weakly stressed, such as *syððan* 'after'.[1] But the cases involving preceding /w/ may be quite separate phonologically from the others and are treated separately under §§5.180–2. In LWS, see below, such ⟨y⟩ spellings are rather more numerous and even appear occasionally in the case of /iː/. It is difficult to suppose that a preceding /r/ could have had the effect of rounding which we may assume for preceding /w/, for where /r/ has any phonological effect in OE it is usually one of retraction and/or lowering, as in the case of breaking, see §§2.74, 5.16. In the case of weakly stressed or unstressed /i/ rounding seems most unlikely, since no other similar case is evidenced in OE.[2] It seems more likely that in the kinds of environment specified above there was a tendency for /i/ to be laxed, that is, to become more centralized and lowered, to something like [ɪ].[3] At much the same time, but perhaps a little later, in the same dialects /y/ must have been laxed to, say, [ʏ]. With this proposal may be usefully compared the Kt development of /y(ː)/ > /e(ː)/, which must have involved both lowering and unrounding.[4]

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[1] To these cases might be added examples such as *byrnan* 'burn', alongside *biernan*, *birnan*, see §§5.166, 171.

[2] Indeed it is noticeable that where [ø], the *i*-umlaut of */o/, is weakly stressed, for example, as the formative element of weak class 2 verbs, it is always unrounded, see §§5.77 and n3, 6.10(2). Campbell's suggestion (1959: §§317–18) that the spelling of /i/ as ⟨y⟩ indicates rounding seems to be based on the assumption that ⟨y⟩ necessarily represents [y].

[3] See Gimson (1980: 104) for a description of a similar phenomenon in PDE.

[4] Similar accounts to that given here are to be found in Lewenz (1908), Gradon (1962), and Kim (1984).

5.171 If the account given in §5.170 is correct, then in EWS there must have been a very complex relationship between several front vowel phones. These phones would be as follows: (1) [i], the normal development of OE /i/; (2), [ʏ] the result of laxing of OE /y/; (3) [ɪ], the result of laxing of OE /i/ in the environments specified in §5.170; (4) [ï], the normal development of original *ī̆e*, cf. §5.164.[1] Whatever the phonemic interpretation of these variations might be, it seems probable that WS scribes adopted a broadly consistent approach to the representation of these sounds. Thus [i] is regularly spelled ⟨i⟩, for example, *ridon* 'they rode', and [ʏ] is regularly spelled ⟨y⟩, for example, *cyning* 'king'. As described in §5.170, [ɪ] can be spelled as either ⟨i⟩ or ⟨y⟩, the latter becoming more frequent in later texts. The reason for this was presumably that the initial choice was between ⟨i⟩ = [i] and ⟨y⟩ = [y], when the former would be favoured, but the gradual laxing of [y] > [ʏ] resulted in the choice being between ⟨i⟩ = [i] and ⟨y⟩ = [ʏ], when ⟨y⟩ would more clearly indicate the laxed nature of [ɪ], see Gradon (1962: 75). For [ï], as suggested in §5.164, the digraph ⟨ie⟩ was probably a compromise spelling to indicate a vowel half-way between [i] and [e], but the alternative EWS ⟨i⟩ spelling and the regular LWS ⟨y⟩ spelling would each naturally develop from the situation described immediately above.[2]

[1] The suggested phonetic transcriptions here are not intended to be accurate, but merely serve to distinguish symbolically the various sounds and to indicate in broad terms the probable phonetic tendencies in the development of each.

[2] Perhaps to be taken here is an unexplained development in LWS especially, whereby *sel-* develops to *syl-*. Thus we find regular LWS *syllan* 'give', *sylf* 'self' corresponding to EWS *sellan*, *self*, also common *syllić* 'wonderful' alongside *sellić* and rare *sylra* alongside usual *selra* 'better'. It is possible that the change is also seen in Nbr (Li, DurRitGl) *sileð* 'he gives' alongside usual *seleð*, hence *silo*, *sila* 'I give'. In Merc Ru1 *sylf* (4×), *sylle* 'give!' (1×), beside usual *sel-*, is probably a further sign of WS influence on the text, whilst Ch 204.1 *sile* may be due to the influence of 204.3 *siollanne* infl.inf. with *a*-umlaut of /e/ and ⟨io⟩ for ⟨eo⟩. The Kt forms Ch 1482.37 *sylfum* is difficult, as it occurs alongside 1482.25 *siolf*. An explanation for these developments must be sought most probably either in the developments outlined in this section or in the equally difficult breaking forms discussed in §5.22. Alternatively, one might look to the suggestion of Bülbring (1900a) that /s/ could acquire a dorso-alveolar or prepalatal articulation.

5.172 Excluding examples involving negative contraction, see §5.152, the principal examples of the shift from ⟨i⟩ to ⟨y⟩ in EWS texts are as follows.[1] Firstly, after /r/, *ryht* 'right' and various derived forms, but see §5.114 and n1, CP(C) 218.7 *abrycð* 'he storms', CP(H, C) *fryććea* 'herald', CP(H)

-sprynge ‘spring’ (3×), Chron(A) 755.21 *bryttisċum* ‘British’ dat.sg., 896.6 *ġerypon* ‘they reaped’, Or(B) 45.9 *drynċ* ‘drink!’, 11.13 *aspryngð* ‘it springs up’. Secondly, in low stress positions[2] we find *ðysum*, *ðyses*, and various other forms of *þes* ‘this’,[3] and in Chron(A) *ylcan* ‘same’ (5× to 912), *myċel* ‘much’ (2×), also CP(C) 368.13 † *myċele*. A number of words also show ⟨y⟩ in environments other than those specified above, such as CP *clypian* ‘call’, *ágyldan* ‘pay’, CP(H, C) *symle* ‘always’ (6×), *hlyniġen* ‘lie down’, Or(B) 99.11 *symbel* ‘always’,[4] 2.27 *bysmerliċ* ‘shamefully’, 2.4 *bysmredan* ‘they disgraced’. Some at least of these forms may be precursors of the more extensive use of ⟨y⟩ in LWS.[5] In addition to these examples we find cases of ⟨ie⟩ spellings for /i/ in the same environment, such as *briengan* ‘bring’, *hieder* ‘hither’, *hiene* ‘him’. Whether these are merely confused spellings for /i/ or an alternative representation of the laxing of /i/ seems impossible to determine, see also §5.165.

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[1] Except in the case of *ryht*, which is the normal form in EWS, all the ⟨y⟩ spellings cited here are rare examples alongside normal ⟨i⟩.

[2] *Dyde* ‘did’ is not to be placed here, both because it would not normally be low stressed and because it is common OE. For some discussion of the source of /y/ here see Brunner (1965: §358A1).

[3] It must be recalled that spellings of the type *synd*, *synt* ‘they are’ in Or are from ms. C, essentially LWS.

[4] Other forms apparently identical to this are either from ms. C or forms of *symbel* ‘feast’ with /y/ due to *i*-umlaut.

[5] Or also has 155.23 (B) *ciningum* ‘king’ dat.pl. and 97.22 (B) *ġenihtsumnisse* ‘abundance’, showing ⟨i⟩ for the *i*-umlaut of */u/, both probably no more than scribal errors.

5.173 In LWS the tendency for /i/ to lax and be represented by ⟨y⟩ is greater, at least in low stress environments. Nevertheless, in texts such as ÆCHom ⟨y⟩ spellings are still very sporadic in most cases, for example, *ys* ‘is’ 2×, *hys* ‘his’ 3×, *hyt* ‘it’ does not occur, *þyses* ‘this’ gen.sg. 24× (against *þises* 59×), *synd* ‘they are’ 43× (against *c*.400× *sind*). For further exemplification of the situation in one clearly Ælfrician ms., ÆCHom I 5(R), see Gradon (1962: 72ff.), from which it is clear that laxing could take place even under primary stress, and that preceding /r/ did not have the same effect as in EWS. Note especially that the standard LWS form of EWS *ryht* is *riht*, see §5.114 and n1. In other LWS texts, such as WSCp, ⟨y⟩ spellings are much more frequent. Thus in that text *is* outnumbers *ys* only in the approximate ratio 4:3.[1]

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[1] The possibility of laxing under primary stress is confirmed by the occasional LWS laxing of /iː/, as in *ȳdel* ‘idle’. Thus in ÆCHom and some other Ælfrician texts *ȳdel* and forms considerably outnumber *īdel*, although the same does not hold for Wulfstan, where *ȳdel* is entirely absent.

5.174 Outside WS such variation between ⟨i⟩ and ⟨y⟩ is very rare, and the most usual cases are where ⟨i⟩ substitutes for ⟨y⟩. Examples of this substitution in the early Merc glossaries are: EpGl 199 *smiġilas* 'burrows', 621 *cistiġian* 'munificent', 701 *ġenicldae* 'knuckled', ErfGl 2 *risil* 'fat' (Lat *axungia*), also CorpGl 219 *rizel* (Lat *arvina*), 275 *hirnitu* 'hornet', 277 *mich* (= *myċġ*) 'midge', 372 *aritrid* (= *arydid*) 'plundered', 711 *libb* 'medicine'. But these may be no more than scribal errors for ⟨ui⟩, which occasionally occurs in these glossaries, see §2.18. In Ps(A) the substitution only occurs in 50.14 *ġetrime* 'strengthen!', whilst Ru1 has ⟨i⟩ in the following words: *drihten* 'lord' and forms (21× ⟨i⟩, 52× ⟨y⟩), *kining*, *king* 'king' (against 20× *cyning*, etc.), *ġenihtsum-* 'abound' var.infls. (2× against 7× ⟨y⟩), and *ðincaþ* 'they think' against ⟨y⟩ 6×. In Nbr such variation is not found in the early texts, but in later texts *drihten* is invariable.[1] Other examples are sporadic: MtGl(Li) 1.6, DurRitHyGl 134.1 *cinig* 'king', MtGl(Li) 15.11 *ofcimes* 'he proceeds', DurRitGl 9.39 *ġetrimað* 'he strengthens'.[2,3]

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[1] *Drihten* cannot be due to palatal umlaut which does not otherwise occur in Nbr, see Bülbring (1899a: 70), Lindelöf (1901: §72A1).

[2] Note that *cinig* is not frequent, *pace* Campbell (1959: §315), and for *ġestir* = ms. *ġesċir*, see Campbell (1972: *ġestyr*).

[3] Nbr also has *symle* 'ever' for *simle*, thus showing the reverse substitution. For examples of ⟨y⟩ for /i/ after /w/ see §5.181.

5.175 The evidence from the texts cited above suggests that the laxing of /i/ began very sporadically in WS only at about the time of the Alfredian texts, and that the change was restricted to some (at least) WS dialects. Examples from the early Merc glossaries do not support an earlier date, see §5.174, and other examples from nWS are too infrequent to suggest that the change was widespread there. The relative infrequency of ⟨y⟩ spellings in Ælfrician, as opposed to other LWS, texts could either show the presence of a careful spelling tradition in the *Schriftsprache* or that laxing of /i/ was less frequent in the dialect which underlay that language. On the other hand, the evidence of other LWS texts shows that laxing of /i/ was widespread and frequent by that time. For the reasons stated in §5.171 it seems likely that laxing of /y/ occurred at a slightly later date than laxing of /i/, but that too must have been fully under way by the LWS period.

XVI The influence of /w/

5.176 From the earlier changes of breaking and back umlaut there is clear evidence that a preceding /w/ could cause retraction and/or rounding beyond the normal limits of those changes, for example, forms such as Nbr *sword*

‘sword’ < **swerd*, cf. WS *sweord*, *wudu* ‘wood’ < **widu*, cf. Kt *wiada*, *weoda*. For discussion and exemplification of such cases of combinative breaking and combinative back umlaut see §§5.28ff, 5.108ff. During the period of the written texts /w/ comes to have a further similar influence on following front vowels and diphthongs. It is possible to distinguish two forms of the influence exerted by /w/, these two forms differing in both their phonological effect and their dialectal distribution. The first, occurring extensively in Nbr, may be taken under the heading of rounding, the second, more or less confined to LWS, may be taken under the heading of raising. The latter change, however, also involves retraction of the following vocalic sequence wherever possible. Given the phonetic nature of /w/ the changes are clearly all instances of the assimilation of a vocalic sequence to a preceding /w/. Although rounding after /w/, as in Nbr, and raising between /w/ and /r/, as in LWS, have phonologically much in common, the two changes are best kept separate because of their dialectal distribution, and are therefore discussed separately below.

(a) ***Rounding***

5.177 In NNbr especially, and to a lesser extent in other N dialects, there is a very strong tendency to round /e/, less frequently /eː/, to /ø, øː/ after /w/, hence such examples as *woer* ‘man’ < *wer*, *wōēron* ‘they were’ < *wēron*. This is clearly the result of the feature of rounding inherent in /w/ being transferred to the immediately following vowel, and the change may therefore be approximately characterized as follows:

$$\begin{bmatrix}\text{V}\\ -\text{high}\\ -\text{low}\end{bmatrix} \Rightarrow [+\text{round}] \;/\; \begin{bmatrix}\text{C}\\ +\text{round}\end{bmatrix}$$

5.178 There is no sign of this change in the earliest Nbr texts, thus CædH 3 *uerc* ‘work’. But in the later Nbr texts DurRitGl shows the change practically without exception and Li has the change very frequently with the short vowel and frequently with the long vowel. Typical examples in addition to *woer*, *wōēron* are: *woeġ* ‘way’, *woerc* ‘work’, *woes* ‘be!’, *cwoeða* ‘say’, *swoefen* ‘dream’, *twoelf* ‘twelve’, *woenda* ‘go’, *wōēde* ‘garment’, *wōēpen* ‘weapon’, *cwōēdon* ‘they said’, *hwōēr* ‘where’, *twōēġe* ‘two’, *wō̆ē̆* ‘we’.[1] In Ru2 such rounding is practically absent except in *woeġ*, hence *awoeġ* ‘away’, see Lindelöf (1901: §93b) for discussion. The change is not found elsewhere.

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[1] Occasional ⟨oæ⟩ spellings, such as DurRitGl 1 15.27 *woæca* ‘we keep watch’, MkGl(Li) 14.69 *cwoæða* ‘speak’ are of no significance, despite §5.179.

5.179 In the dialect of Ru1 there is a frequent change of *we* > *wæ*, for example, *wæġ* ‘way’, whose precise significance and cause remain uncertain. It seems most plausible to assume, however, that it is due to the influence of /w/, and it may not be unconnected with the rounding process discussed above, for similar forms are also found very occasionally in Nbr. Typical forms in Ru1 are: *cwæð* ‘speak!’, *cwæðende* ‘speaking’, *wæl* ‘well’, *wæliġ* ‘rich’, *swæġre* ‘mother-in-law’, *swælteþ* ‘he dies’, in all cases alongside forms with ⟨e⟩, such as *cweþ*.[1] But a similar change occurs in other words too, especially before *fn*, *ġn*, for example, *stæfn* ‘voice’, *þæġn* ‘servant’, and it may be, as suggested by Kuhn (1939, 1945), that the scribe is merely confused and unable to distinguish Merc usage from that in WS, see Campbell (1959: §259n1) for criticism of this view.[2] In Nbr Li has, for example, *wæras* ‘men’, *wæliġ* ‘rich’, and it is unlikely that such forms are to be subsumed under back umlaut, see, however, Campbell (1959: §210.2n4).

[1] Examples of ⟨æ⟩ spellings for *ǣ*$_1$ in the same text, for example, *cwǣdun* ‘they spoke’ and especially *wǣrun* ‘they were’, *hwǣr* ‘where’, could indicate the same phenomenon, but could equally well be due to scribal confusion through WS influence.

[2] Luick (1914–40: 289), after Gabrielson (1912: 208), argues that the appearance of ⟨æ⟩ is analogical, but this is scarcely plausible.

5.180 A possible parallel shift of /i/ > /y/ is more sporadic, and only occurs with the short vowel, but cf. §5.166 for the EWS development of *ie* > /y/ in labial environments. Dialectally, however, this shift is more widespread than the rounding of /e(ː)/, being found in both EWS and LWS as well as Nbr. However, in Nbr at least some of the forms might be explained as inverted spellings after unrounding of /y(ː)/, see §5.174 and n1, 3, and in WS the forms could be explained under §5.170. How far, therefore, we are dealing with a genuine extension of the influence of preceding /w/ remains dubious.

5.181 Examples in EWS are extremely rare: CP 205.12 *swynġean* ‘strokes’, CP(C) 18.22 † *nōwyht* ‘not’, CP(C) 218.15 *cwyde* ‘saying’.[1] But in LWS the rounding is more frequent. Thus ÆCHom has almost equal numbers of *wylle* and *wille* ‘I wish’, and the rounding is found in numerous other forms, such as *hwylċ* ‘which’, *swylċ* ‘such’. In NNbr the only form which shows such rounding at all frequently is *wynn* ‘work’ and derived forms, but note also DurRitGl 1 9.4 *suyppa* ‘whip’ (alongside 22.20 *suippum*). In Ru2, however, there are a number of examples, notably of *wyllo* ‘I wish’ and forms, but also of *wynster* ‘left’.[2]

[1] CP(C) 184.15 † *swȳ̆ra* ‘neck’ should not be included here, see §5.127n1.

[2] Luick (1914–40: §283A2) and Girvan (1931: §126A) see Ru2 *wyllo* as due to the influence of *nyllo* ‘I don’t wish’, but this explanation may be unnecessary.

5.182 It is doubtful whether the rounding attested in contracted forms such as *nylle* 'don't want' < **ni wille* should be included under the present heading, since it is widely and regularly attested in all dialects. That shift would appear to involve low stress, see further §5.152.

(b) Raising

5.183 In LWS there is an increasing tendency for short vowels and diphthongs between /w/ and /r/ to be raised and, where appropriate, retracted to /u/. The sounds affected by this change are /eŏ, y, o/, with the change only being reasonably frequently represented in the case of /eo/, where spellings such as *swurd* 'sword' < *sweord* exist alongside the diphthongal spellings. The change does not affect *æ*, *a*, or the diphthong *ea*, which implies that it could only affect nonlow vowels. Further, the change does not affect *e*, hence LWS *wer* 'man'.[1] It seems most probable, therefore, that only rounded segments were affected and that by this time *eo* was developing into /ø/, see further Brunner (1965: §113A1) and §5.207. The change may therefore be approximately characterized as follows:[2,3]

$$\begin{bmatrix} \text{V} \\ -\text{low} \\ +\text{rnd} \\ -\text{long} \end{bmatrix} \Rightarrow \begin{bmatrix} +\text{high} \\ +\text{back} \end{bmatrix} \text{ / /w/ \_\_\_\_\_\_\_ /r/}$$

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[1] There are, of course, no cases where /i/ appears in this environment. The arguments to the contrary in Girvan (1931: §120A1) are unconvincing.

[2] For convenience the phonetic features of /w/ and /r/ have not been specified.

[3] The change also may be inhibited by a velar consonant immediately following /r/, for forms such as *wurc* are rare, for example, HomS 38, 49 *wurc* and forms (2× each). LWS *worc*, especially common in Ps(C), can scarcely be an example of combinative breaking, but is not easily explained. Luick's (1914–40: §266A2) suggestion that the form is a low-stress one originating from a compound such as *handweorc* is possible but not demonstrable, and the form is not EWS, see §5.30n3.

5.184 In EWS there are almost no signs of the change of *weor* > *wur*, except perhaps in Or *Ġeoweorþa* for Lat *Jugurtha*, where it is generally assumed that ⟨weor⟩ represents a scribal interpretation of /wur/ as heard in dictation, thus indicating a falling together of *weor* and *wur*.[1] In LWS, although the most usual forms are, for example, *weorpan* 'throw', *weorþan* 'become', *weorþian* 'honour', *sweord* 'sword', ⟨u⟩ spellings can be found in many mss. In ÆCHom *wurpan* occurs 4×, *wurþað* 10×,[2] *wurþian* 12×, *swurd* 12×, and the only comparable form with ⟨eo⟩ is ÆCHom I 18 246.9 *weorþað*, although similar spellings are found in related forms. But in WHom almost the reverse obtains, with an overwhelming majority of ⟨eo⟩

spellings. Amongst important examples are common LWS *swura* 'neck' and occasional *þwuru* and forms 'crooked', for the implementation of the change here demonstrates a short vowel despite the loss of *h*, see §5.127 and n2.

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[1] But such a conclusion is not necessarily safe. Presumably the Latin word was approximately /juwurθa/, with in OE initial /ju-/ being transcribed quite normally as ⟨geo⟩, see §5.60. Given the use of ⟨eo⟩ to represent /u/ in the first syllable, it would not be surprising if the scribe then carried over this spelling convention to the second syllable, also containing approximant + /u/. Although the form occurs 15× in Or, the occurrences are all in the same section except for one occurrence in a chapter heading, and therefore could well be interpreted as due to interference from the first syllable rather than the early implementation of the present sound change.

[2] Not distinguishing between *wurþað* 'they become' and *wurþað* 'he honours'.

5.185 Retraction of *wyr* > *wur* is very sporadically represented in LWS texts, but some examples include: AldV *wurdwrītere* 'historian' (2×), ÆLS, ÆHom *wurm* 'worm' and related forms (9×), Mt(WSCp) 3.10 *wurtrumum* 'root' dat.pl., all of which show retraction of /y/ the *i*-umlaut of */u/. ÆCHom II (5×), ÆLS (2×), Lk(WSCp) 21.36 *wurþe* 'worthy', ÆLS (Aethelthryth) 65 *ġewurpan* 'recover', AldV 1 *wurste* 'worst' show retraction of /y/ < **ie*.[1]

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[1] There are also a number of cases of ⟨y⟩ for ⟨eo⟩ which imply that /eo/ and /y/ had merged as /u/. Examples are apparently found as early as CP 191.15, 339.18 *wyrðen* 'might be', later examples being *cwyrn* 'mill' and forms, especially frequent in ÆHom 19 but also found in ÆCHom I 34, ÆGl and Mt(WSCp), Beo, Jud *swyrd*, also in Ps(C). An example of ⟨eo⟩ for ⟨y⟩ is And *weorm* 'worm', rarely found elsewhere.

5.186 The only certain examples of raising and retraction of *wor* > *wur* are: WSCp *wurd* 'word' and forms (*c.*8×), Mt(WSCp) *ġewurden* 'become' (2×). Additionally Lch II(2) 20.1.8 *wursm*, AldV 1 4873 *wurms* 'pus', ByrM 1, also AldV 1 *wurdlian* 'speak' and forms occur, but these may be from earlier forms with *y*, see Gabrielson (1912: §425), and HyGl 2 *wurolde*, *wurolda* could be from earlier *worold* or *weorold*, see §5.110.

5.187 Chronologically the changes of rounding and of raising probably occurred at much the same time. Rounding of /e(ː)/ cannot have taken place by the time of the eNbr texts, given CædH *werc*, and in any case for such a form to undergo rounding Angl smoothing must have already taken place. Since that change is to be dated just before the time of the earliest texts, see §5.102, and since CædH is mid eighth-century, it is impossible for the rounding to have been much earlier than *c.*800. But the change is fully operative in later Nbr, and therefore must be dated between *c.*800 and *c.*950. A similar dating for the other cases of rounding discussed above seems likely, although an early tenth-century date for the sporadic rounding of /i/ fits the WS evidence best. Despite the example of *Ġeoweorþa*, see §5.184, it is most likely that raising and retraction between /w/ and /r/ is not to be found in EWS, but is reasonably common at least in some LWS dialects of the late tenth century, notably Ælfric. Such texts also show that this change change only commonly affected *weor* sequences in the OE period, although the same change does affect *wor* sequences quite extensively, *wyr* sequences less so, in ME. We may therefore conclude that the change started with *weor* sequences during the tenth century, only gradually spreading elsewhere during the course of the next century.

XVII The development of Kentish front vowels

5.188 After the operation of *i*-umlaut but before the time of the earliest texts, Kt had the following front vowels: /i(ː), e(ː), æ(ː), y(ː), ø(ː)/. This system was essentially the same as that in WS, for /æː/ was the reflex of both Gmc **ǣ* (*ǣ*$_1$) and Gmc **ai*, the latter by *i*-umlaut to *ǣ*$_2$, see §§3.24–5, 5.79(1) and below. But by the late tenth century, as evidenced in OccGl 49, the front vowel system had been radically simplified with all vowels except /i(ː)/ merging with /e(ː)/. Although the consequences of these various mergers are unitary, see J. M. Anderson (1988a), it seems probable that each vowel shifted to /e(ː)/ independently and that therefore it is not proper to give a single description of all three mergers. The reasons for this are mainly chronological, see further below. One consequence of the mergers is that Kt texts often show inverted spellings, that is, spellings in which ⟨æ⟩, ⟨y⟩ – but not ⟨oe⟩, see §5.192n1 – appear for /e(ː)/ in words which did not originally have /æ(ː), y(ː)/, such as *ærfe* ‘inheritance’ = *erfe* < *earfe*.

(a) Raising of ǣ̆

5.189 In eighth-century Kt texts, that is, Ch 21, 23–4, 31 (see Campbell, 1959: §289n2), there is no evidence of raising of *æ*, hence Ch 21 *paed* ‘path’, all texts *aethel-* personal name-element. In texts of the first half of the ninth century ⟨æ⟩ spellings predominate greatly, such as Ch 1188 *mæġe* ‘I may’, *aelmessan* ‘alms’, Ch 41, 1482 *hæbbe* ‘I have’, *hwæt* ‘what’, both *æt* ‘at’. A minority of ⟨e⟩ spellings include Ch 1188.21 *ðet*, 34 *ðette* ‘that’, 19 *festendæġ* ‘fast-day’, Ch 1482.28 *hebbe* ‘has’ pr.subj., 58 *deġ*, 38 *deġe* ‘day’. In texts of this date occasional inverted spellings with ⟨æ⟩ can also be found, such as Ch 41.17 *onċærrende* ‘turning’, Ch 1188 *ġæfe* ‘grace’ (2×), Ch 1482 *ærfe* ‘inheritance’ (3×), alongside *erfewearda* ‘heirs’, *sæleð* ‘gives’. Such inverted spellings are slightly more frequent than cases of ⟨e⟩ for *æ*. In the second half of the ninth century ⟨e⟩ spellings come to predominate, even in some cases, such as Ch 1195, to the complete exclusion of ⟨æ⟩, and in other cases, such as Ch 1510, ⟨æ⟩ and ⟨e⟩ spellings appear to be interchangeable. In OccGl 49 ⟨e⟩ predominates greatly over ⟨æ⟩,[1] and note the rare inverted spelling 498 *wær* 'man'.[2]

[1] In OccGl 49 ⟨æ⟩, usually editorialized as ⟨ę⟩ is used rather than ⟨æ⟩. It is doubtful that this has any significance, *pace* Williams (1905: §§102–4), see also §2.12n1. The same usage is frequently found in the Surrey Ch 1508.

[2] For the development of *æ* < *_a_+nasal by *i*-umlaut, see §5.78(1).

5.190 In eighth-century Kt texts *ǣ*$_1$ is spelled ⟨e⟩ at Ch 21.3 † *mēguuines* personal name, † *strētleġ* place-name, but the texts have Mercianisms elsewhere, such as 21.7 † *aehcha* personal name with Angl smoothing, and therefore the forms are of uncertain value. On the other hand *ǣ*$_2$ is spelled ⟨æ⟩ at Ch 21.7 *āēssica* personal name. Of early ninth-century texts Ch 41 consistently spells *ǣ*$_2$ as ⟨æ⟩, for example, 8 *arǣddan* 'they determined', 16 *nǣniġ* 'no', but has no certain examples *of ǣ*$_1$.[1] In other texts of a similar date, however, both *ǣ*$_1$ and *ǣ*$_2$ are freely written as either ⟨æ⟩ or ⟨e⟩, and in the latter half of the century the situation is similar to that for short *æ*. Similarly in OccGl 49 ⟨e⟩ spellings predominate, although ⟨æ⟩ spellings occur slightly more frequently for *ǣ*$_1$ than for *ǣ*$_2$, see Williams (1905: §§6, 30). It would appear that in the ninth century both *ǣ*$_1$ and *ǣ*$_2$, were still distinguished from *e*, for the latter is rarely spelled ⟨æ⟩ by inversion.[2]

[1] Unless *swǣ* 'so' (7×) is taken as a genuine example of *ǣ*$_1$, see §3.25n1.

[2] In early ninth-century texts the only example of such inverted spellings is Ch 1188.43 *hāēr* 'here'. Other cited examples, such as *mǣgas* 'kinsmen', are simply examples of *ǣ*$_1$ etymologically spelled.

5.191 From the evidence of the early Kt texts it would appear that the raising of short *æ* can be dated early in the ninth century, since eighth-century texts do not show the change, but it became increasingly well represented over the next half century. Since, as seen in §5.190, most Kt texts treat *ǣ*$_1$ and *ǣ*$_2$ similarly, it seems likely that they were both raised to *ē* at the same time, and further that the raising of the long vowels occurred at the same time as the raising of the short vowel.[1] We may therefore conclude that this process of *æ*-raising was unitary and specifically Kt of the first half of the ninth century.[2] This, of course, implies that Kt was originally an *ǣ*$_1$-dialect, and not, as is usually claimed, a dialect where *ǣ*$_1$ = /eː/. For full discussion see §3.24, also Crowley (1986).

[1] For further details see Hogg (1988). The often-made connection between Kentish raising and second fronting seems spurious, see §5.87n1 and references therein. It may be that Kentish raising is dialectally extended to the sporadic Angl raising of *ǣ*$_2$ before dentals, see §5.79n1, but the situation remains obscure.

[2] Campbell (1959: §290) suggests that the raising may have been earlier but obscured by Merc spelling traditions which strongly influenced early Kt. This seems more plausible than the suggestion of Toon (1983: 150–2) that raising of short *æ* was in fact due to second fronting introduced during the period of Merc domination of Kent.

(b) *ō̆ē̆ > ē*

5.192 As stated in §5.77, /ø(ː)/, the *i*-umlaut of */o(ː)/, was regularly unrounded to /e(ː)/ in S dialects, the change being virtually complete in WS by the time of the EWS texts. The earliest example in Kt of such unrounding is Ch 41.8 *ġerēfa* 'reeve' at the beginning of the ninth century, cf. Ch 1482.1 *ġerōēfa*. The only other reasonably certain example before *c.*850 is Ch 1197.22 *blēdsung* 'blessing',[1] although this could also have involved early shortening, see §5.200. After this time, however, ⟨e⟩ spellings quickly become more frequent, and in OccGl 49 no ⟨oe⟩ spellings are found.[2]

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[1] Ch 1188.22 *tuǣġen*, 1482.18 *twǣġen* 'two', also found frequently in Ru1, could well come from earlier **twājen* rather than **twōjen*, and hence show the etymologically correct vowel, see Girvan (1931: §24A). Also cited as an inverted spelling is Ch 1200.5 *bōēm* 'both', but this charter is now dated 867x870. It is also noteworthy that if this is a case of inversion, it appears to be the only such case.

[2] Kt scribes often write ⟨eo⟩ for ⟨oe⟩, see §2.17n1.

5.193 The evidence presented in §5.192 makes it probable that unrounding of *ō̆ē̆* occurred in Kt in the middle and second half of the ninth century, roughly at the same time as in WS. Whether the Kt change was independent or the result of WS influence is difficult to determine. Given these dates, the very early *ġerēfa* may well be a scribal error.

(c) *ȳ̆ > ē̆*

5.194 The shift of /y(ː)/ > /e(ː)/ is scarcely represented before the end of the ninth century, exceptions being Ch 1200 *yfter* 'after' (2×), where ⟨y⟩ is an inverted spelling for *efter* < *æfter*, and perhaps also Ch 328.9 *Heregēðe* (< *Heregȳðe*) personal name, and the inverted spelling ChHead 1204 2.5 *fȳt* 'feet' (= *fēt* < *fōēt*), all texts belonging to the second half of the ninth century. In the later OccGl 49, however, ⟨e⟩ spellings predominate, such as 784 *ferht* 'fear', *gerdels* 'girdle', 1020 *leras* 'losses', 58 *onhere*, 886 *onherie* 'imitate', *brēcð* 'he enjoys', 331, 452 *-tēnð* 'opens', 176, 781 *behēd* 'hidden'. Note especially 454 *netenes* 'ignorance' < *nytenes* with *y* due to contraction of **ni-wi*, see §5.152. ⟨y⟩ spellings in the same text are found in a minority of forms with a short vowel, such as 67, 558 *cyne-* 'royal', 157, 352 *ymb-* prefix, and with a long vowel only in 478 *cȳðere* 'witness'. Occasional inverted ⟨y⟩ spellings are found, such as 1111 *hrȳremūs* 'bat', *lȳċes* 'leech', *mȳġð* 'family', 1101 *lȳssan* 'less', 614 *ċyrð* 'he turns'.

5.195 The evidence presented in §5.194 makes it probable that the unrounding and lowering of *y* was somewhat later than the other changes discussed above and that the change only began in the latter half of the ninth century and was not fully implemented until the tenth century. Note particularly that the ninth-century examples must be somewhat uncertain, since both *yfter* and *Heregēðe* could be low-stress forms.

(d) Summary

5.196 The above evidence suggests that it is most reasonable to conclude that the first of the three changes was *æ*-raising, which probably took place at about the beginning of the eighth century and uniformly affected all instances of *ǣ̆* of whatever origin. In this respect the change is distinctively Kt and not, directly at least, connected with similar changes in Merc. The unrounding of *ō̆ē̆*, however, seems to have been part of the general unrounding of /ø(ː)/ in S. dialects, which belongs to the second half of the eighth century. Slightly later still took place the distinctively Kt shift of *ȳ̆* > *ē̆*.

XVIII Changes in quantity

5.197 During the OE period a number of changes in vowel quantity occurred. These changes shared a common feature, in that all were dependent upon OE syllable structure and stress patterns. Essentially these changes appear to have occurred in order to approximate as far as possible to isochronous intervals between stressed syllables, see Luick (1914–40: §203). If a stress foot is defined as a phonetic string commencing at the peak of one stressed syllable and ending immediately before the peak of the next stressed syllable, then we may say that the changes described below were brought about by the tendency to equalize the lengths of stress feet. The changes which occurred may be subdivided as follows: (a) lengthening in monosyllables; (b) vowel shortening; (c) vowel lengthening. Each is discussed separately below.

(a) Lengthening in monosyllables

5.198 Throughout the history and prehistory of English there has been a requirement that the rhyme constituent of a stressed syllable must be at least bimoric, that is, contain either a long vowel (or diphthong) or a short vowel (or diphthong) followed by a consonant in the same syllable. Such a change clearly ensures that a stress foot will be of a certain minimum duration and thus aligns with the tendency described in §5.197, for further discussion see §2.80–1. In OE this requirement leads to a considerable variation in form in those monosyllables which could be stressed or unstressed according to their position in the sentence or emphasis, for example, *þū̆* 'thou', *wē̆* 'we' and many other pers.prons., *sē̆* 'that', *nū̆* 'now', *swǣ̆* 'so', *tō̆* 'to'.[1] Lengthening also takes place in the prefixes of *twīfeald* 'twofold', *þrīfeald* 'threefold' consequent upon these prefixes receiving the main lexical stress.[2]

[1] For the similar but more complex position in PDE, see the discussion of strong and weak forms in Gimson (1980: 260–4).

[2] There is also some evidence that vowel lengthening took place in monosyllables closed by a single consonant, for example, ÆGram 126.12 *ġetēl* 'number' acc.pl. instead of the expected *ġetelu*, see Napier (1899), Bülbring (1902: §284). But the evidence is sparse and the change seems to have been sporadic. Nevertheless, the processes involved are clearly similar to those in monosyllabic lengthening and in the vowel lengthening discussed under (c) below.

(b) Vowel shortening

5.199 Another method of equalizing the length of stress feet is to shorten over-heavy syllables, that is, syllables containing a long vowel (diphthong) and two consonants.[1,2] Shortening of such structures was achieved in OE by shortening the long vowel, as exemplified in *bremblas* < **brǣmblas*, see §5.78(2), *godspell* 'gospel' < *gōdspell*, see Luick (1914–40: §204A1), and in many cases where a geminate consonant is followed by /r/, such as *næddre* 'adder' < *nǣddre*, *blæddran* 'bladders', *riċċra* 'more powerful'. In some instances shortening in inflected forms, such as *attres* 'poison' gen.sg., *moddra* 'mothers', can be analogically extended to uninflected forms, as indicated by consonant doubling in *attor*, *moddor*, etc.

[1] The change is usually described as taking place when three consonants follow the long vowel, see, for example, Luick (1914–40: §204.1), Campbell (1959: §285). But given the structure of OE syllables, see §2.80–1, it seems preferable to say that the change takes place if two consonants follow in the same syllable, and that further the following syllable must begin with a consonant. An analogous situation holds for the change described in §5.200, and see further §5.201.

[2] An exception to these changes occurs when the following consonant cluster is /st + liquid, for example, *wrǣstlian* 'wrestle', hence ME *wrestlen* alongside *wrastlen*, *þēostre* 'dark'. No doubt this is a consequence of the special status of /s/ + stop consonant clusters in OE, see §2.83.1, also Luick (1914–40: §204A3). A comparison with PDE may be helpful, see Hogg and McCully (1987: 48–9).

5.200 In addition to the changes described in §5.199, long vowels were also shortened when followed by at least one consonant in the same syllable and two further syllables.[1] This change is clearly a further instantiation of the tendency to equalize stress feet. Typical examples include: *bletsian* 'bless', cf. *blōd* 'blood', compounds in *en-*, such as *endemes* 'together', *endleofan* 'eleven', *enwintre* 'one year old', cf. *ǣnne* 'one' acc.sg.masc., compounds in *sam-*, such as *samcucu* 'half-dead', *samboren* 'prematurely born'.[2,3]

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[1] In some cases shortening appears to take place before geminates even when only one syllable follows. Thus Angl *enne*, see below and §5.79(1), Nbr *leassa* 'less' with back umlaut of /æ/, *sioððan* 'since', with back umlaut of /i/, see §5.107, LWS *sylla*, *sylra* 'better', with *sel-* > *syl-*, see §5.171n2, also Nbr *sella*, where the absence of ⟨oe⟩ spellings more probably indicates a short vowel than a long, see §5.77. For other possible examples see Campbell (1959: §286).

[2] Then by analogical reformation forms such as *samhāl* 'weak'.

[3] There are a further number of cases where vowel shortening occurs outside the limits of §§5.199–200. Such forms are indicated by orthographic doubling of a single intervocalic consonant, which probably also reflects a phonological doubling, and they are exemplified by, for example, *reċċan* 'care', *ðrittiġ* 'thirty'. For discussion of this obscure and uncertain change see Campbell (1959: §287).

5.201 The changes described above are clearly related. In terms of the environments in which they occur it can be seen that a long vowel is shortened before two consonants and one following weakly stressed syllable or before one consonant and two following weakly stressed syllables, and that in each case the immediately following syllable must begin with a consonant. Therefore the changes can be characterized in a unitary fashion, approximately as follows:

$$\mathrm{V} \Rightarrow [-\mathrm{long}] \;/\; \underline{\qquad\quad}\; \mathrm{C}\langle \mathrm{C}\rangle_a]_b\ [\mathrm{C}\ldots]_a\ \langle[\ldots]_\sigma]_b$$

Condition: either a or b.

(c) Vowel lengthening

5.202 In apparent contrast to the changes discussed in (b), during the OE period short vowels became lengthened when followed by liquid or nasal + homorganic voiced consonant, that is, *ld*, *rd*, *rl*, *rn*, *rð*, *rs*,[1] *mb*, *nd*, *ng*. Thus we find examples such as *gold* > *gôld*.[2] However, this can be seen as part of the same tendency to equalize the lengths of stress feet, in this case by the lengthening of short stressed syllables, see §5.198. For this to be the case it must be assumed that such consonant clusters had a special status in syllable structure, in that their behaviour was more akin to that of a single consonant than that of a bimoric cluster.[3] This vowel lengthening, although presumably widespread, is not shown in the orthography, where vowel length is not regularly indicated, see §§2.4–5, and must be deduced from its interaction with other OE sound changes and the fact that in eME vowels in these circumstances behave as long vowels.

[1] The fricative in *r*s, r*ð* clusters would only be voiced in OE when a voiced segment immediately followed, hence voiceless with unlengthened preceding vowel in *fers* 'verse', but voiced with lengthened preceding vowel in *ēarsas* 'buttocks'.

[2] I indicate long vowels due to this process by a circumflex to distinguish them from etymologically long vowels.

[3] Evidence in support of this position comes from ME changes such as the loss of certain voiced stops after a preceding resonant, such as in *lamb*, and also from the phonotactics of PDE syllables, see, for example, Hogg and McCully (1987: 45–7).

5.203 A typical example of this change is *ċild* > *ċîld* 'child', and hence similarly *hêard* 'hard', *ċêorl* 'churl', *bêarn* 'child', *êorðe* 'earth', *wŷrsa* 'worse', *clîmban* 'climb', *bîndan* 'bind', *lâng* 'long'. As the account in §5.202 implies, the change did not take place in weakly stressed words, such as *sċeolde* 'should', *and* 'and'. Furthermore, the change seems not to have taken place, in OE at least, in many words where it might have been expected. Thus we find LWS *wurd* 'word', *swurd* 'sword', *wurðian* 'honour', forms which only developed where the vowel was short, see §§5.183–6. In contrast note the failure of *seld* 'seat' to develop to ***syld*, which is best explained by the assumption of *sêld*, see §5.171n2.

5.204 This sound change gave rise to a considerable degree of variation in words where a third consonant would directly follow the homorganic cluster in inflected forms, for in such cases the change was prevented. Thus we find *ċildru* 'children' alongside *ċîld*, and so in many other cases. This variation seems often to have been levelled away in favour of the short vowel, as ME developments testify. The levelling away of the long vowel was no doubt in part favoured because the sound change seems never to have been fully implemented, at least before groups, see Jordan (1974: §22).

(d) Summary

5.205 The changes described in (a) above were undoubtedly due to syllable phonotactics which remained constant throughout the period, and hence they would occur whenever the appropriate situation arose. The other changes, however, were no doubt consequent upon shifting syllable phonotactics and are datable within the period. In the case of the vowel shortenings, examples such as *bremblas* and *endemes* do not necessarily prove that the shortening took place before the time of *i*-umlaut, but they must have taken place before raising of /æ/ before nasals, see §§5.78(2), 5.79(1). Further, the examples cited in §5.200n1 show that the shortening must have occurred before the time of back umlaut and similarly or later dated changes. We may therefore conclude that vowel shortening was already operative by the time of the earliest texts. The somewhat sporadic nature of vowel lengthening, together with the absence of orthographic evidence, makes the dating of that change rather more difficult. But the presence of back umlaut in Nbr *behionda* ‘behind’, Kt *siondan* ‘they are’, and the development of /æ/ > /e/ before a nasal in, for example, *sendan* ‘send’, as against the failure of *sêld* to develop to ***syld*, would imply that the change is probably to be dated *c.*ninth century, see further Bülbring (1900a: 87–9; 1902: §205A2).

XIX Monophthongization of diphthongs

5.206 In this section two quite different processes of monophthongization are discussed. Firstly, in §§5.207–9, I discuss a process of monophthongization due to shift in prominence which is occasionally seen in some LWS and lNbr texts. Secondly, in §§5.210–14, I discuss the even later process of monophthongization which can be seen as the beginnings of the eME tendency for all OE diphthongs to be lost.

5.207 In both LWS and lNbr there are a few scattered forms which seem to indicate that a shift in prominence could occur so that the second element of a diphthong was the more prominent, so leading to a monophthongization via loss of the first element. In LWS the forms most often involve a preceding palatal consonant, either /ʃ/ or /j/, for example, *sċāwian* ‘observe’ < *sċēawian*, *onġān* ‘against’ < *onġēan*. Interestingly, there are also a few forms involving preceding /s/, which may be further evidence in favour of a prepalatal allophone of /s/, hence *sufon* < *seofon*, see further §§2.62, 5.171n2, and the change is usually restricted to examples after /s/ in lNbr.

5.208 Examples in LWS of the above change include: ÆCHom *scāwie*, *sċāwiað*, forms of *sċāwian*, PsGl(I) 72.4 *sċāwung*, occasional, not Ælfric, *sufon*, ÆCHom II 223.62 *onġān*, WSB † *sufoða* ‘seventh’, see for the forms after /s/ Brunner (1965: §125A1). In lNbr the principal examples are all after /s/, hence Ru2 *solf* ‘self’ < *seolf*, Li, Ru2 *soðða* ‘afterwards’ < *sioðða*, see §5.107, Li, DurRitGl *sulfer*, cf. Li *seulfres* gen.sg. Additional examples are DurRitGl 197.8 † *fōuer* ‘four’ < *fēower*, 24.8 † *ġitrōwaliċe* ‘faithfully’ < *-trēow-*, see Lindelöf (1890: 43). These latter forms not after /s/ are, however, scarcely trustworthy.

5.209 Further evidence for the above change is found in some late texts where the spellings ⟨geo, gea⟩ and ⟨eo, ea⟩ have become confused initially. Thus we find Brun 9(D) † *ġealgodon* ‘they defended’ for *ealgodon*, BenRW 42.6 *ġearfoðe* ‘difficult’ for *earfoðe*, RecCGl 11.22 *ġeornustliċe* ‘therefore’ for *eornustliċe*, Ch 1467.1 *aġīode* ‘happened’ for *aēode*, and, with loss of

⟨g⟩, WaldA 25 † *ēoc* ‘help’ for *ġēoc*, And 1625 *eador* ‘together’ for *geador* (with initial /ɣ/ or /g/).

5.210 Towards the end of the OE period the diphthongs /e͝o, eo/ and /æ͝ɑ, æɑ/[1] became monophthongs in almost all dialects, the only exception being Kt, where the long diphthongs underwent a separate development, see §5.213. In the case of /e͝o, eo/ the monophthongization was to /ø(ː)/, as is confirmed by the Anglo-Norman influenced spellings ⟨ue, oe, o⟩ in eME. The implication of this is that the change was caused by the loss of the second, less prominent, element of the diphthong (thus contrasting strongly with the change discussed in §§2.207–9), but that in the process of that loss the feature of rounding was transferred to the first element. In the case of /æ͝ɑ, æɑ/ the monphthongization was straightforwardly to /æ(ː)/, by loss of the second element. The change is very poorly represented in OE texts, partly no doubt because of the conservative influence of the *Schriftsprache*. But it would also be the case that ⟨eo⟩ could be used equally well for /ø(ː)/ and for /e͝o, eo/, since usually no phonemic merger or split is caused by the change and in the standard language earlier /ø(ː)/ from *i*-umlaut, represented by ⟨oe⟩, had long been lost. Shortly after the monophthongization of /æ͝ɑ, æɑ/ the short phoneme participated in the merger of /æ/ and /ɑ/, see §5.215–16. The monophthongization of these diphthongs may be approximately characterized as follows:

$$\begin{bmatrix}\text{V}\\ \text{+syll}\end{bmatrix}\begin{bmatrix}\text{V}\\ \alpha\text{rnd}\end{bmatrix} \Rightarrow \begin{bmatrix}\text{V}\\ \alpha\text{rnd}\end{bmatrix} \quad \text{Ø}$$

5.211 The monophthongization of /e͝o, eo/ is scarcely represented in texts until the very end of the period.[1] Even in texts written *c*.1100, such as Ps(K), the usual spelling is ⟨eo⟩, but there are a number of ⟨e⟩ spellings, such as *hera* ‘their’ (frequently), *erþan* ‘earth’ infl. (2×), 67.34 *hefenas* (beside *heofena*), 148.14 *heuenan* ‘heaven’ dat.pl., *werc* ‘work’ and forms (4×), *þēwa* ‘servant’ and forms (5×), *ġēmerung* (< **ġēomrung*)[2] ‘moaning’ (5×), *betwēnan* ‘between’ (2×), *þēda* ‘people’ (2×), and many single examples of other words. Rather less frequently there occur ⟨o⟩ spellings, as in *storran* ‘stars’ (2×), 95.11 *hofenas*, 105.20 *hora*, 103.6 *dōpnes* ‘deepness’. For further examples from this and other texts see C. Sisam and Sisam (1959: §62). The spelling variations no doubt reflect uncertainty over the most proper representation of the new sound, and preference for ⟨e⟩ over ⟨o⟩ need not be taken to imply monophthongization to /e(ː)/. In the first half of the eleventh century such ⟨e⟩ spellings are found on coins with some frequency, see for discussion Colman (1984: 122), so that their generally later appearance in mss. is most probably due to the persistence of orthographic convention.

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[1] By this time the /i͝o, io/ diphthongs which had been retained in Nbr up to the time of LiGl, see §5.159, must have merged with /e͝o, eo/, see Ekwall (1923: 199).

[1] Apparent examples from much earlier texts are undoubtedly due to scribal error, for example, PsGl(A) 27.3 *hortum* 'heart' dat.pl.

[2] The form is difficult, for *ġeōmrung* normally has a rising diphthong due to palatal diphthongization of */oː/, see §§5.59–60, hence ME *ȝomer* 'misery'. It seems likely that the form is due to a sporadic shift of prominence to the first element.

5.212 The monophthongization of /ǣ̆ɑ, æɑ/ is scarcely represented in texts dating from the beginning of the eleventh century and examples such as ÆCHom II 9 74.75 *ælle* 'all' are sporadic in the most reliable WS mss., see, however, Schlemilch (1914) for further details.[1] Parallel to the monophthongization of /ē̆o, eo/, ⟨æ⟩ spellings for the monophthongized diphthong are found on coins of the first half of the the eleventh century, see further Colman (1984: 121–3). In later texts ⟨æ⟩ spellings become much more frequent, as exemplified in Ps(K) *ælle* 'all' (7×), *þærfan* 'pauper' (12×), *hǣfod*, *hǣuod* 'head' (9×) and other words. Notably, the same text also has occasional inverted spellings of ⟨ea⟩ for *æ*, such as 106.35 *weatera* 'water' gen.pl., 118.133 *ēaniȝ* 'any', 121.3 *dēalnimende* 'taking part'.[2]

[1] Occasional Nbr forms such as Li *towærd*, Li, Ru1 *ðærf*, *þærf*, Ru2 *nēdðærfe* may show the change already beginning in Nbr dialects by the end of the tenth century.

[2] In Ps(K), as in some other texts, see Luick (1914–40: §279), also C. Sisam and Sisam (1959: §61), there is a tendency for *ē̆a* which is the result of palatal diphthongization to monophthongize to /e(ː)/ rather than /æ(ː)/, as exemplified by a number of ⟨e⟩ spellings, such as *ċestra* 'city' (2×). This may indicate that the first element of the diphthong due to palatal diphthongization was higher than [æ], see §5.49.

5.213 In contrast to the situation in other dialects, in Kt the long diphthongs /eo, æɑ/ do not monophthongize. ME evidence shows that this was because in Kt long diphthongs prominence tended to shift from the first element to the second, so that they became rising, or at least level-stress, diphthongs, see Jordan (1974: §82 and references). There is also some evidence to show that the Kt short diphthongs could be similarly affected, see Kuhn and Quirk (1953: 50) and references therein.

5.214 Although the evidence from eleventh- and twelfth-century texts would imply that monophthongization only began to be fully implemented in the second half of the eleventh century, this may well be misleading, since established orthographic conventions would inhibit the scribal recognition of the change, see Luick (1914–40: §355). Furthermore, in the case of /ē̆o, eo/ there was no phonological necessity for the recognition of the change, see §5.211. In this context, therefore, the existence of spellings on coins indicating monophthongs and the sporadic occurrence of such spellings elsewhere assume particular importance, and perhaps point to a date *c.*1000 for monophthongization. In any case the shift of /æ̆ɑ/ > /æ/ must precede the merger of /æ/ and /ɑ/, which may be a mid eleventh-century change, see §5.216 below. Furthermore, since it seems probable that the shift of *weor* > *wur* involved a stage through [ø], see §5.183, and since that change belongs to the tenth century, see §5.187, this might be taken to imply that /eo/, at least, was already being monophthongized well before 1000.

XX Merger of /æ/ and /ɑ/

5.215 For almost all of the OE period there were two low short vowel phonemes, namely /æ/ and /ɑ/,[1] although the phonemic contrast may have been marginal, see §2.13 and references. At the end of the period, however, these two phonemes merged. The phonetic quality of the merged sound is difficult to determine, see esp. Lass (1976: 105–34), but phonemically it may be safest simply to interpret it as a low vowel, that is, /a/, not further specified as front or back.

[1] Naturally this is not the position in Kt after the operation of æ-raising, see §§5.189–91, and the position in second fronting dialects was more complex, see §§5.87–92.

5.216 Although ⟨a⟩ spellings for earlier *æ* or *æ* < *ea* do not start to appear until *c.*1100[1] in mss., such spellings do occur on coins during the reign of Edward the Confessor, and not simply before back vowels, cf. Campbell (1959: §329.3n2). Thus we find † *Alfsie*, cited in Colman (1984: 121). This may, as Colman argues, be evidence that the merger had begun before the time of the Conquest.

[1] Thus Ps(K) has only a very few examples of such ⟨a⟩ spellings, for example, 108.9 *barn* ‘children’, 138.10 *halt* ‘it shall hold’.

6

Unstressed vowels

6.1 The most plausible reconstruction of the vowel system of unstressed syllables at the beginning of the OE period would suggest the following short vowels: */i, e, a, u/, and the following long vowels: */iː, æː, uː, oː/. The long vowels were the result of either over-long vowels or diphthongs in Gmc, see Chapter 3 for this and other details of the development of unstressed vowels in Gmc, also §6.27 and n1. The existence of long vowels in unstressed syllables at this time suggests that the effects of the earlier Gmc stress system remained at least to some extent, although diphthongs could no longer appear in unstressed syllables, see §3.33 and also §6.27(4). The most important features of the development of unstressed vowels in OE are the reduction in length (VV > V, V > Ø) of such vowels, and the reduction in the number of contrasts in the system. However, unstressed vowels, early in OE, also participated in a number of sound changes which affected stressed vowels, particularly first fronting and associated changes.

I First fronting and associated changes

6.2 The first fronting of unstressed */a/ in general proceeded similarly to that of its stressed counterpart. The principal inflexional forms where fronting of */a/ took place were: (1) nom.sg. of weak fem. and neut. nouns, such as _tunge_ 'tongue' < _*tungæ_ < _*tunga_ < _*tungōn_; (2) past ind.sg. of weak verbs, such as _fremede_ 'I performed' < _*framidæ_ < _*framida_ < _*framidōm_; (3) gen.sg. of _a_-stem nouns, such as _stānes_ 'stone' < _*stānæs_ < _*stānas_ < _*stainas_. Outside inflexions the change is seen with the suffix _-iġ_ < _-eġ_ < _-æġ_ < _*-ag_, for example, _hāliġ_ 'holy', _maniġ_ 'many'.[1,2] Since in unstressed syllables a following intervocalic nasal would belong uniquely to the following syllable, see §2.81, first fronting would proceed unhindered in such cases. Thus disyllabic nouns and adjectives such as _fæġen_ 'glad', _mæġen_ 'might',

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þēoden ‘prince’ have *-en* from inflected forms such as pl. *þēodenas* < **þēodænōs* < **þēodanōs*.[3] Particularly frequent parallel examples are found in the past parts. of strong verbs, such as *riden* ‘ridden’.[4]

[1] The stage immediately after first fronting is seen in EpGl *hunaeġ* (2×) ‘honey’, 824 (also CorpGl 1621) *popaeġ* ‘poppy’.

[2] Gmc */ɑː/ in unstressed syllables normally underwent the same development to /æː/, Angl /eː/ as in stressed syllables, see §§3.22–5. After the period of first fronting, etc., however, it was shortened, see §6.28. It is possible that *frætwe* ‘ornament’, *ġeatwe* ‘armour’ (beside *ġetawa*) show early shortening to */a/ with development as above followed by syncope, but see §2.91n4.

[3] Similarly CædH(M) 1 *hefaen-* ‘heaven’ alongside the more usual *heofon*.

[4] EpGl, ErfGl regularly have *-æn*, for example, 814 *forslaeġæn* ‘struck down’, alongside other forms with *-in* < IE *-en*, such as 744 *forsleġinum*. But CorpGl does not have such forms with the possible exception of 918 *afiġaen* ‘fried’. For discussion of this form see Wynn (1956: 111–12) and references.

6.3 When */a/ was followed by a tautosyllabic nasal, then, as with stressed */a/, see §§5.3–6, it would appear that the vowel was nasalized at a time prior to first fronting and that this nasalization prevented fronting from taking place. It is notable, however, that the forms involved are regularly spelled with <a>,[1] contrasting with the stressed vowel development, and this implies that the normal development in unstressed was merely to /ɑ/. Typical examples are found in the infinitive of verbs, the nom.pl. and other inflexions of weak nouns, and parallel inflexions of weak adjectives, such as *helpan* ‘help’, *guman* ‘men’, *blindan* ‘blind’.

[1] For words with <o>, see §6.4.

6.4 Several groups of words show developments which are exceptional with regard to §§6.2–3. These exceptions are exemplified in subsections (1) and (2) below, and the phenomena are discussed in (3) below.

(1) A number of words demonstrate apparent failure of first fronting with */a/ not before a nasal. The words fall into three groups: (a) non-lexical items or forms of the copula *wesan*; (b) the originally secondary-stressed elements of obscured compounds or prefixed nouns; (c) unstressed verbal prefixes. Instances of each of these are: (a) *ac* ‘but’, *hwa* ‘who’, *swa* ‘so’,[1] *was* ‘was’, alongside much more frequent *wæs*, *nas* ‘wasn’t’, very rare alongside usual *næs*; (b) *and-*, *ondsworu* ‘answer’,[2] *here-pað*, *poð* ‘main road’, *sīþfat* ‘journey’, occasionally alongside *sīþfæt*; (c) *of-*, *ot-*, unstressed variants of *æf-*, *æt*, see §2.88. As can be seen, in such instances the usual spelling of the vowel is ⟨a⟩, but otherwise less frequent ⟨o⟩ is normal in unstressed prefixes.

(2) In some words where Gmc */a/ stands before a nasal the development is to a form normally spelled ⟨o⟩ rather than ⟨a⟩. These words fall into two groups, cf. above: (a) non-lexical items; (b) the secondary-stressed elements of compounds or prefixed nouns. Instances of the first group are: *hwone* 'who' acc.sg., *hwon* instr.sg., *þone* 'that' acc.sg., *þon* instr.sg., *on* 'on', *hwonne* 'when', *hwonon* 'whence'. Except in the case of *hwonon*, where the more frequent form is *hwanon*, spellings with ⟨a⟩ are rare. In the second group there is often a further development to ⟨u⟩, hence: *ācumba* 'oakum', *æfþunca* 'offence' (more frequently *æfþanca, æfþonca*), *furlung* 'furlong' (more frequently *furlang*, occasionally *furlong*),[3] *liċuma* 'body' (occasionally, beside usual *liċhama, liċhoma*).

(3) It would seem certain that the changes described in (1) and (2) are largely parallel. Nevertheless, both the environments in which they occur and the developments which are reflected by the spellings are problematical. Concerning the environment, it is clear that the changes take place neither in primary-stressed syllables nor in wholly unstressed syllables. The latter point is made clear by the behaviour of Gmc */a/ in unstressed inflexional endings, such as *tunge* 'tongue', *guman* 'men'. Rather, the changes appear to be restricted to syllables which either formerly bore secondary stress or are the more heavily stressed syllables of non-lexical items. There appears to be no non-arbitrary method of satisfactorily describing this situation. For the sake of convenience the term 'tertiary stress' appears to be the most convenient.[4] In terms of the actual developments, the regularity of ⟨o⟩ spellings for Gmc */a/ + nasal would suggest that here the development was to /o/, rather than to [ɑ] or [ɒ] as in fully stressed syllables, see §5.3, although it is likely that there would have been an intermediate stage */ɑ/, see §6.7. This would seem to be confirmed by the ⟨u⟩ spellings exemplified above, which would allow the possibility of further raising to /u/ in tertiary-stressed position. For the examples of Gmc */a/ not followed by a nasal, the ⟨a⟩ spellings are most obviously interpreted as representations of /ɑ/ with the possibility of raising to /o/ under obscure conditions.

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[1] *Swǣ̆* is not found in Ælfric and is generally more common in EWS than in LWS. It is to be derived from Gmc stressed **swā* > *swǣ*, with shortening in positions of reduced stress. The parallel forms in Angl are *swē̆*, cf. CædH, Ps(A) *swē*. Similar forms are not found for *hwa*. The alternative Nbr form *swǣ* is not explicable in the above terms and remains difficult, see further §3.25n3.

[2] *And-*, *ondswaru* is of course ambiguous between the present development and restoration of *a* before a back vowel.

[3] But not *sūlung* 'Kt measure of land', which cannot be from *sūlh+lang*, since ***sūllung* does not occur, nor do forms with *a*, and forms with *o* are rare, see Campbell (1959: §333n1).

[4] This is not to imply that tertiary stress actually existed as a phonological phenomenon in OE. The term is merely a convenience to describe a group whose stress status is obscure.

6.5 The development of the Gmc diphthong */ai/ in secondary-stressed syllables could parallel the development in primary-stressed syllables, that is, */ai/ > /ɑː/, hence forms such as *-stān*, for example, *cweornstān* 'mill-stone', and many similar forms. But this /ɑː/, and also examples of /ɑː/ from Inguaeonic loss of nasal, such as **orāþ* 'breath' < **oranþ*, could then be subject to shortening to */ɑ/ if the secondary stress was weakened. Consequently, in line with the developments of §6.4(1), both ⟨a⟩ and ⟨o⟩ spellings are found, but in these cases the latter greatly predominate, for example, *eofot* 'crime', cf. EpGl 854 *ebhatis*, *earfoþ* 'trouble', cf. Mart 5.1280 *earfaþ-*, *ēorod* 'troop', cf. AldV 1.377 *ēorada*, *wulmod* 'distaff'.[1,2] The only certain example due to Inguaeonic loss of nasal is *orūþ*, alongside *orāþ*, see above.

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[1] Further possible forms are *bēot* 'boast' < **bi-hat*, see §5.124n4, and *innoþ*, *innaþ* 'the inside (of the body)'. But the former shows diphthongization due to hiatus resolution, where the normal result is /eo/, see §5.136, and the latter is preferably to be derived from earlier **innoþ-*, with ⟨a⟩-spellings due to late confusion of unstressed vowels.

[2] For alternative developments of *earfoþ*, *ēorod*, see §6.29.

6.6 It is only reasonable to assume that, where first fronting and other changes associated with stressed syllables took place also in unstressed syllables, the chronology of the changes was the same in both types of syllable. The exceptional developments discussed in §§6.4–5, however, appear to have been rather later, for they are more common in late texts than in early ones. Furthermore, they are in part dependent upon shifts such as the obscuration of compounds and the subsequent weakening of stress. For further evidence that they belong to a later, if uncertainly dated, period, see the discussion of breaking in §6.7.

II Breaking, palatal diphthongization, *i*-umlaut, and back umlaut

6.7 As stated in §6.1, diphthongs did not occur in unstressed syllables in OE. Consequently, the development of diphthongs by breaking which occurred in stressed syllables was not paralleled in unstressed syllables.[1] The principal relevant examples concern the breaking of */æ/, which in unstressed syllables was retracted to /ɑ/ rather than diphthongized. The usual environment for the retraction was 'tertiary' stress (see §6.4 and n3), that is, in the second element of obscured compounds or in the initial syllable of function words. Examples of the first type are: *hlāfard* 'lord', *andward* 'present', *toward* 'towards', Ch 1197.20 *wiaralde* 'world', and many second elements of proper names, as in *Æðelbald*, etc.[2] Examples of the second type are *nalles* 'not at all' (< **ne+alles*, see 5.152), WSCp *art* 'thou art' (3×), CP 203.15 *ðarf* 'thou needest', but these vary with stressed forms, that is, *nealles*, and the more usual *eart*, *þearf*.[3] Since the relevant environment is 'tertiary' stress, this /ɑ/, which is likely to have merged with the sound developed from Gmc */a/ + nasal in the same stress environment, see §6.4, is then subject to raising to /o/, hence the usual *hlāford*, *weorold*, *efolsiġa*, and very occasional *toword*. Sometimes there is further raising to /u/, hence occasional LWS *hlāfurd*, also at MtGl(Li) 2.28, frequent *weoruld*, and in Ru2 forms of *eofulsiġa*.

[1] Because secondary stress is regularly retained in inflected forms, see §2.89, giving, for example, *andweardan*, the diphthong of inflected forms could then be transferred, presumably with secondary stress also, to uninflected forms, giving frequent *andweard*, similarly *toweard*. The phonological reflex of the analogy is found in forms such as frequent *andwerd*, *towerd*, with monophthongization of the analogical diphthong. For LiGl *tōwærd*, however, see §5.212n1. The same diphthongal forms are often found with proper names also, such as *Beornheard*, where the spelling may be a reflection of etymology. PPs 104.17 *hlāfwearde* is most probably due to diphthongization in secondary-stressed syllables, as above, rather than to the retention of compound stress.

[2] It is not possible to distinguish the development in Nbr *efalsiġa* 'blaspheme' from normal Angl retraction, cf. Angl *halsian*, WS *healsian*, but loss of /h/ shows that the syllable does not have secondary stress. Similarly EWS *onwald* 'authority' could either be due to the present developments or be a characteristic EWS form deriving from the so-called *a*-dialect, see §5.15 and n2. Its relatively high frequency alongside *onweald* might be due to a combination of the two factors, if it is not to be treated as a lexically idiosyncratic phenomenon, see §5.15n2 and references.

[3] Nbr *arð* 'thou art' cannot be explained by combinative breaking, see §5.29, and should therefore, perhaps, be treated in parallel with WS *art*. But its frequency is striking, and thus ought to be related to the Nbr instances of retraction in stressed syllables.

6.8 Examples where unstressed */i/ was in an environment for breaking are largely restricted to instances with a preceding /w/, and here there appear to have been two possible developments. Firstly, the /i/ might remain, hence *fulwiht* 'baptism', *nāwiht* 'nothing'. Secondly the preceding /w/ might cause retraction to /u/, hence alternative forms such as *nānwuht*, *fulluht* (also with loss of /w/ in an unstressed syllable), *betwuh*, *betwux* 'between'.[1]

[1] The suggestion by Bülbring (1902: §422), Campbell (1959: §338n1) that eKt Ch 1200.20 † *Ċīalbarht* is a genuine development from *-beorht* seems unlikely. It is more probably an error for *-biarht*, *-bearht*.

6.9 Even in WS there is no sign of palatal diphthongization of front vowels in unstressed positions. In EWS especially, when a palatal consonant occurs before an unstressed back vowel, spellings such as *sēċean* 'seek' occur alongside *sēċan*, but these must be regarded as diacritical to signify the palatal consonant. This is confirmed by the relative rarity of such spellings in LWS. For further discussion see §2.68.

6.10 The operation of *i*-umlaut in unstressed syllables appears in principle to have been parallel to that in stressed syllables. However, the front rounded vowels /y(ː), ø(ː)/ were unrounded at some very early prehistoric stage, developing eventually as /e/.[1] In all cases shortening would occur regularly, see §6.28. Typical examples of *i*-umlaut in unstressed syllables are as follows:

(1) */u/: **ufumist* > *yfemest* 'upmost', **gaduling* > *gædeling* 'companion', and many similar forms. All such forms also show *i*-umlaut of the preceding stressed vowel, and that umlaut presumably occurred at the same time. For further discussion and examples see §5.76.

(2) */oː/:[2] the most widespread examples involve the *-*oj*- formative of the present tense of weak class 2 verbs, which develops > *-*ej*- > *-*ij*- > -*i*-, hence *lufian* 'love' and other verbs of the same class. Other examples involve the suffix *-*ōdi*, as in *hōcede* 'hooked', *hringede* 'ringed', or the suffix *-*rōni* (> *-*rēni* > *-*rene* > -*erne* by metathesis), as in *sūþerne* 'southern'.

(3) */ɑ/: examples involve the pres.part. ending -*ende* (< *-*andi*) and the infl.inf. -*enne* (< *-*anjai*).[3] As with the same change in stressed syllables, the spelling ⟨æ⟩ can be found, especially here in Nbr and Ru1. For discussion see §5.78(1).

(4) */æ/: the most frequent examples involve the suffixes -*estre*, -*ettan* (< *-*astri*, -*attjan*), for example, *sēamestre* 'seamstress', *hlēapettan* 'leap'. But examples are also found in polysyllabic forms, such as *æþele* 'noble', where the vowel is often syncopated, as in *mæġden* 'maiden' < **magadin*, see §6.15.[4]

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[1] Presumably the unrounding of */y/ was in the first instance to */i/, with later lowering to /e/, see §6.50n2.

[2] For *i*-umlaut of */o/ the form *stānehtan* 'stony' is often cited, but this is more probably from *stāniht* with exceptional lowering of /i/, see §6.51. However, EpGl 166 *clibecti* 'steep', cf. *clifiht*, is probably a genuine example, see Luick (1914–40: §302.2).

[3] The form -*ande*, frequent in WS and Nbr, absent only in Ps(A) and CollGl 49 of the major texts, is due to the uninflected inf. -*an*, and NNbr -*ande*, frequent in weak class 2, occasionally elsewhere, is similarly analogical. Note also Ru2 *gangande* 'going' and a few other forms.

[4] In the case of *hæġtess* 'witch' < **hagatussi* medial /æ/ was subject to iterative umlaut. Note that it must be assumed that the medial vowel was subject to first fronting, no doubt because the following back vowel was at that time in a different stress foot.

6.11 Since diphthongs could not occur in unstressed syllables, back umlaut is normally absent from such environments. However, back umlaut could occur in secondary-stressed syllables, examples being: *endleofan* 'eleven', the Kt Ch 1482.10 *ġeornliocar* 'more eagerly', Lch II *sċiptearo* (5×) 'pitch' (< **-teoro*, see §5.42 and n1),[1] *-tiogoþa*, *-teogoþa* '-tieth', Ps(A) *ondwleota* (frequent), MtGl(Ru1) *ondwliota*, *-u* (6×) 'face'. When secondary stress is lost, the diphthong may be simplified either as the original vowel or as the nearest corresponding back vowel. Examples of the former are: *endlifan*, *-licor* (also *-licost* without diphthongized forms), *-tigoþa*. Examples of the latter are: *endlufon*, *ondwlata*, *sċiptara*, rare *-lucor*, *-lucost*, *-togoþa*.[2]

[1] But *-teara* could be due to analogical extension of breaking, see §5.22n3. If so, it should be taken under §6.7n1.

[2] *Ærendraca* 'messenger', *wiðerbraca* 'adversary' are different formations alongside *ærendwreca*, *wiðerbreca*.

6.12 It can reasonably be assumed, in the absence of evidence to the contrary, that the principal changes described in this section occurred at the same time as the parallel changes in stressed syllables. Where these changes resulted in a diphthong in a secondary-stressed syllable which was later to become unstressed, the monophthongization may be presumed to be contemporaneous with the stress reduction.

III Syncope and apocope

6.13 In OE vowels in unstressed syllables were at various times subject to general processes of reduction in length. The normal consequence of such processes was that the length of unstressed vowels was reduced by one mora, so that short vowels were lost and long vowels became short vowels. In this section we deal with the various losses of short vowels in the earliest periods, whilst in section IV we deal with the early shortenings of long vowels. The two processes must be seen, however, as phonologically parallel.

6.14 In all medial unstressed syllables the nonhigh vowels /e, æ, ɑ/[1] were subject to syncope in all environments except where the syllable was closed. Thus nonhigh vowel syncope occurs both after heavy syllables, as in *þēodnes* 'prince' gen.sg. < **þēodænæs*, and after light syllables, as in *awles* 'hook' gen.sg. < **awælæs*. Equally, the change affects both unumlauted vowels, as in the above examples, and umlauted vowels, for example, *mæġden* 'maiden' < **magatin*, provided that the result of umlaut is a nonhigh vowel. Examples of failure of syncope in closed syllables are seen with the suffixes *-estre*, *-ettan*, for examples see §6.10(4).[2] For discussion of the chronology of this change relative to *i*-umlaut, see §6.17 below.[3]

[1] At the time of syncope Gmc */o/ had already lowered to /ɑ/, see §6.28, and hence no examples of /o/ occurred in the environment for syncope.

[2] Syncope does not occur in *bedecian* ‘beg’, perhaps because an unacceptable medial consonant cluster would result, see Luick (1914–40: §303A1).

[3] The syncope which affects /e/ < */i/, as in *yfles* ‘evil’ gen.sg. of *yfel*, is of a later date, see §6.67.

6.15 Examples of nonhigh vowel syncope are found in a variety of forms, but most frequently in inflected or derived forms of bisyllabic words characteristically ending in *-en* (including the past part. suffix), *-el*, *-er*, *-eġ* (later *-iġ*). All such forms are from earlier **-æn*, etc., which may demonstrate the shape of the vowel at the time of syncope, and typical examples are: *awles*, *fæġnes*, *halġes*, *lifre*, *mæġnes*, *ōþres*, all gen.sg. of *awel* ‘hook’, *fæġen* ‘happy’, *hāliġ* (< *hāleġ*) ‘holy’, *lifer* ‘liver’, *mæġen* ‘might’, *ōþer* ‘other’; *ġebundne*, *ġeworpne*, masc.acc.sg. of past parts. *ġebunden* ‘bound’, *ġeworpen* ‘thrown’; *fæġnian* ‘rejoice’ < *fæġen, opnian* ‘open’ < *open*. In compounds where the first element is an *a*-stem noun, the thematic *-a-* is lost, for example, *ælmihtiġ* ‘almighty’, *dæġlīċ* ‘daily’.[1] Examples can also be seen with the suffix *-þa* < **-aþō*, for example, *sċeafþa* ‘shaving’, *spiwþa* ‘vomit’, but these forms exist alongside forms such as *sċeafoþa*, *spiweþa*, from the alternative formations **-uþā*, **-iþā*. The syncope is also found in the acc.sg.masc. of strong adjectives, such as *gōdne* ‘good’ < **gōdanōn*.[2] A further type is the regular comparative as in *glēawra* ‘wiser’, *blindra* ‘more blind’, *hwætra* ‘more active’, *hāligra* ‘holier’, where the Gmc suffix **-ōra* was subject to early shortening to */o/ and then developed regularly to /ɑ/. Examples where an *i*-umlauted vowel suffers syncope are: *hæġtess* ‘witch’ < **hægetyssi*, *lāwriċe* ‘lark’ < **lāweriċe* ‘lark’, *mæġden* ‘maiden’, see §6.10(4) and n4. Amongst individual items with syncope are: *hātte* ‘is called’ < **hātædæ* with assimilation of /td/ > /tt/, *hwæþre* ‘however’, cf. *ōþres* above, *sāwl* ‘soul’ < Gmc. **saiwalō*.[3]

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[1] By analogy the syncope is then extended to compounds with *ō*-stem nouns in the first element, such as *ġifstōl* ‘gift-throne’. But in weak nouns such as *gumcynn* ‘human race’, *heortlēas* ‘dispirited’, the syncope is regular since the thematic vowel was nonhigh.

[2] It is also probable that the fem.gen./dat.sg. *-re* of strong adjectives belongs here, for example, *blindre* ‘blind’. If such forms are from **-aizōz*, **-aizai*, WGmc monophthongization to */æː/ must have been followed by very early shortening to /æ/, since only syncopated forms are found, cf. nomina agentis such as *leornere* ‘learner’ without syncopation. Alternatively, the forms may be derived from **-ezōz*, **-ezai*, pronominal endings seen in the declension of OHG *dera, deru,* in which case syncope of /e/ is predictable.

[3] Also to be taken here is *æxe* infl. form of *æx* ‘axe’ < **æcæsæ*, etc. which is extended to the nom.sg. Merc *acus*, *æcesum* dat.pl. are from the alternative form **acus-*, and Nbr *acas-* appears to be due to confusion of unstressed vowels, see Campbell (1959: §341n2).

6.16 Since syncope often occurs in the inflected forms of polysyllabic words, it naturally gives rise to many morphological alternations of the type exemplified in §6.15. Consequently, the syncope is often levelled away, to give forms such as *aweles*, *haliġes*, etc.[1] Such levelling away is particularly frequent in the past part., hence *ġebundene*, *ġeworpene*, etc.

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[1] Pope (1967–8: 184–5) notes that Ælfric manuscripts of the eleventh century regularly show syncope if the following inflexional vowel is back, hence *hālga, hālgan, hālgum*, but elsewhere the medial vowel is restored, hence *hāliġre*, *hāliġne*, *hāliġra*, *hāliġe*, *hāliġes*. But, as he notes, it is possible that ⟨i⟩ is merely a diacritic to indicate /j/, see further §7.76n2.

6.17 Nonhigh vowel syncope must have occurred after the time of *i*-umlaut, for otherwise forms such as *mæġden* would have undergone umlaut of the stressed vowel (<***mæġdin*). On the other hand this syncope must have been earlier than lowering of unstressed /i/ > /e/, for such vowels are not lost if they are not in the environment for high vowel syncope. Typical examples are *cynedom* 'kingdom', and the past tenses of weak class 1 verbs, such as *nerede* 'saved'.

6.18 The unstressed high vowels /i/ and /u/ were also subject to loss, although in a slightly different set of environments from that discussed in §§6.13–17. Medially /i/ and /u/ were subject to syncope in open syllables after a heavy syllable, for example, *hīrde* 'heard' < **hīridæ* < **hauzida*. Finally, /i/ and /u/ were subject to apocope in open syllables after either a heavy syllable or two light syllables, for example, *word* 'words' < **wordu, weorod* 'troops' < **weorodu*. After one light syllable only, however, /i, u/ remained both medially and finally, for example, *nerede* 'saved' < **neridæ*, *sċipu* 'ships', and the same was true if the vowel was preceded by a heavy and a light syllable, for example, *hēafdu* 'heads' < **hēafudu* with syncope rather than apocope. A coherent description of the environment for high vowel loss is difficult in purely segmental terms. However, if we assume that OE syllables were grouped into 'rhythmemes', and that rhythmemes contained maximally one heavy syllable or two light syllables, and that the head of the rhythmeme is the right-most node, it is possible to state the environment for the change as being an unstressed high vowel immediately preceded by the head of a rhythmeme.[1]

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[1] I owe the term 'rhythmeme' to Chris McCully, see McCully (1991) for further details and justification, especially in terms of OE metre and the phenomenon of resolution. The phonological analysis of the environment offered here is, however, largely based on Keyser and O'Neil (1985), who term the relevant processes 'High Vowel Deletion'. It should, however, be pointed out that much else of their analysis is unacceptable as a diachronic account of OE.

6.19 High vowel syncope in an open syllable[1] after a heavy syllable is regularly found in a number of well-defined circumstances. Thus the preterite of regular weak class 1 verbs, formed with medial /i/ followed by a dental suffix, would show syncope of that /i/ after a heavy syllable, for example, *hīrde* 'heard', *dēmde* 'judge', and, with simplification of the consonant cluster, *sende* 'sent' < **sendidæ*.[2] There is no syncope after light syllables, for example, *nerede* 'saved', *fremede* 'performed'.[3] Syncope also occurs in the comparative of those adjectives which compare by means of **-izō*, **-ist*, and hence show *i*-umlaut. Typical examples include: *yldra* 'older' (< **ealdira*), *ġinġra* 'younger', *lenġra* 'longer', *strenġra* 'stronger' (alongside *strangra* < **strangara* with the regular comparative, see §6.15). Other examples of high vowel syncope also occur in similar circumstances to nonhigh vowel syncope. Thus the syncope is frequent in inflected forms of bisyllabic words, such as *engles*, *hēafdes*, *hǣþnes*, *lȳtles*, all gen.sg. of *enġel* 'angel', *hēafod* 'head', *hǣþen* 'heathen', *lȳtel* 'little'. Note especially *ǣlċes* 'each' < **ǣlīċ* with shortening of */iː/ before the time of syncope. Original *i*- and *u*-stem adjectives would have suffered high vowel syncope in the acc.sg.masc. exactly parallel to that of the *a*-stems (see §6.15), hence *blīþne* 'happy', *heardne* 'hard' < **-inōn*, **-unōn*, unless they had already transferred to the *a*-stems by the time of syncope. In personal names the diminutive **-ika* is syncopated in LVD † *Brȳnca*, † *Drēmca*, † *Hȳnca*. However, there is no syncopation of the vowel in the suffix *-uc*, even in inflected forms, such as *bulluce* dat.sg. of *bulluc* 'bullock'. The explanation of such forms is uncertain.

[1] As with nonhigh vowel syncope, the change does not usually occur in closed syllables, hence *cyninges*, *lēasunge*, *englisċes*, *stānihte*, other examples of the same suffixes in inflexion, and particularly the superlative forms of the adjectives cited below, such as *yldest* 'oldest'. But especially with superlatives syncopated forms are often introduced analogically in LWS, see §6.24(2). Other examples of syncopation are usually rather late, such as *cyng* 'king', see §6.69.

[2] But where the heavy syllable ends in a consonant cluster with a final liquid, for example, *hyngrede* 'hungered', there is normally no syncope, hence *dīġlede* 'concealed', *frēfrede* 'comforted', *timbrede* 'built', *symblede* 'feasted', *wrixlede* 'exchanged'. The retention of the medial /e/ (</i/) appears to promote confusion with weak class 2 verbs, hence forms such as *hyngrode* develop and so present tense forms such as *hyngrian*. In Nbr especially, however, the syncope appears to be permitted and hence a syllabic liquid occurs, giving rise to frequent forms of the type *hyngerde*, see further §6.41n3.

[3] But the lack of medial /i/ in verbs of the *cwellan–cwealde* 'kill', *wyrċan–worhte* 'work' type is of Gmc origin, and unrelated to the present changes, see Prokosch (1927).

6.20 Apocope of /i, u/ occurs in absolute finality[1] immediately after the head of a rhythmeme (see §6.18 and n1) most commonly in a variety of inflected forms. Thus in *a*-stem neut.pl. we find forms of the type *word, weorod* against *fatu* 'vessels', *hēafodu* 'heads'; in *ō*-stem nom.sg. we find *lār* 'learning', *netel* 'nettle', *ġeoguþ* 'youth', *sċotung* 'shooting'[2] against *ġyfu* 'gift', *sāwl* 'soul' (see §6.15); in *i*-stem nom.sg. we find *dǣl* 'part', *wyrm* 'worm'; in *u*-stem nom.sg. we find *feld* 'field', *hand* 'hand', against *sunn* 'son', *duru* 'door'; similar to the above are *wa*- and *wō*-stems such as *þēow* 'servant', *lǣs* 'pasture', against *bearu* 'grove', *sinu* 'sinew'; finally there are the nom.pl. of athematic nouns, such as *fēt* 'feet', *bēċ* 'books', against *styde* 'posts'. Amongst verbs apocope is seen in the imp. of weak class 1 verbs such as *dēm* 'judge!', *send* 'send!', against *freme* 'perform!', *here* 'praise!'. Individual examples outside the above categories are: *twǣm* 'two' dat. < **twaimiz*, possibly **twaimuz*, similarly *þǣm* 'them'.[3] However, if final /i, u/ is followed by a consonant, apocope does not occur, hence *ġelǣded* 'led', *wǣron* 'were' and many others, with *-ed*, *-on* for older *-id*, *-un*. See, however, §6.24(2).

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[1] Hence apocope, like syncope, does not take place in closed syllables, for example, *wordum* 'words' dat. against *word* < *wordu*.

[2] In forms similar to *sċotung* but with the initial syllable heavy also, syncope occurs after two heavy syllables, for example, *lēasung* 'falsehood'.

[3] Probably also to be included here is Angl *milċ* 'milk', alongside WS *meolc*. In order to account for the lack of back umlaut it must be assumed that the nom.sg. is extended from gen.dat.sg. forms such as **milyċi* < **miluki*, with apocope of final /i/ only at the same time as the apocope above. The WS form is from **meluk*. The syncope of **milyċ* > *milċ* is of later date, see §6.68.

6.21 Loss of a high vowel also regularly occurs medially in compounds after a heavy syllable, for example, *ġisthūs* 'inn', *hȳþsċip* 'pirate ship', *mǣdland* 'meadow land', *flōdweġ* 'sea', *handseax* 'dagger'. However, such loss seems to have been partially dependent upon the weight of the second element, and loss was less likely before a heavy syllable than before two light syllables, presumably for suprasegmental reasons. Hence we find *hilderinc* against *hildfruma* and other similar forms, note especially LVD † *Hildiburg* against † *Hilduini*. On the other hand, in proper names the loss is often extended to positions after light syllables, so that *Cyn*-, *Her*-, *Hyġ*-, *Siġ*-, *Bad*-, *Friþ*-, *Haþ*- occur alongside *Cyni*-, *Cyne*-, *Badu*-, etc.[1] Occasional parallel examples with common nouns include: Aug 1 *cwidbocan* 'book of sayings', Ch 1352 (2×) *heġstowe* 'enclosure' (also other compounds of *heġe*), Ch 842.2 *herpaðes* 'main road', LkGl (Li, Ru2) *metbæliġ* 'meat-bag', PrudGl 1.1071 *metfæt* 'dish', Or 129.3 *metseacsum* 'meat-knives', EpGl 992, RuneBewcastle 2 *siġbēacn* 'victory beacon', usually alongside more frequent forms without loss, such as *herepað*.[2] In the prefix *el*-, *ele* 'foreign' loss of /i/ greatly predominates, hence always *elþēodiġ* 'strange', cf. *eleland*, *elland* 'foreign country'.

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[1] But LWS *cynliċ* 'kingly' for *cyneliċ* is to be explained as a form from the nominative, paralleling other late *ja*-stem compounds such as *bedtīd* 'bedtime', rather than by the variation outlined above. The variation *Selred, Selered* is due to the variation in the simplex, that is, *sel, sele* 'hall', thus also not by the variation above.

[2] But where the first element is an ō-stem noun, as in *carlēas* 'careless', *luftācen* 'love-token', *sċeamfæst* 'shamefaced', the loss of /u/ is more probably due to the analogy discussed in §6.15n1. For other apparent exceptions see §6.31 and Campbell (1959: §348n2).

6.22 The internal chronology of the various syncopes and apocopes discussed above is somewhat complex. However, forms such as *sāul* 'soul' < Gmc **saiwalō* must have developed with syncope of */ɑ/ > **sāulu* and then apocope of */u/ > *sāul*, hence demonstrating that nonhigh vowel syncope was earlier than high vowel apocope. Further, **rīkiu* > **rīċiu* > *rīċu* ≯ ***rīċ*, demonstrates that high vowel syncope was not subsequently followed by high vowel apocope.[1] From this we must conclude that the internal ordering was: nonhigh vowel syncope – high vowel apocope – high vowel syncope. For an alternative account which permits the changes to be contemporaneous, see §6.25, and see also Luick (1914–40: §309).

[1] The statement by Campbell (1959: §353) that in forms such as **rīċiu*, **hǣofudu*, etc., where both medial and final high vowels 'were in conditions demanding loss of the vowel, the middle syllable was the one affected', is somewhat misleading. It should, however, be interpreted as claiming that where syncope occurs (> *rīċu*, *hēafdu*), apocope does not then occur even although the final vowel is in the relevant environment. This can be explained chronologically, as below, or on general phonological grounds, as in §6.25.

6.23 It has been noted in §6.17 that nonhigh vowel syncope must have occurred later than *i*-umlaut but earlier than lowering of unstressed /i/ > /e/. Forms such as *bēċ* 'books', *yldra* 'older' equally demonstrate that high vowel apocope and syncope must both be later than *i*-umlaut (and palatalization). On the other hand, there is no necessity to suppose that these changes were later than the earliest texts. This might be supposed by a consideration of forms in hiatus where the hiatus is resolved by loss of the unstressed vowel, for example, **dē-ist* > *dēst* 'thou dost', see §§5.131ff. Although such forms bear a superficial resemblance to, for example, apocope in **sǣi* > *sǣ* 'sea', where the earlier form is disyllabic, it is quite clear that the resolution of hiatus occurs in a wider range of environments, with respect both to the vowel which is lost, as in, for example, **sċō-es* > *sċōs* and to the fact that hiatus may be regularly be resolved even when the unstressed vowel is in a closed syllable, as in *dēst*, above, see §§6.19n1, 6.20n1.

6.24 Both syncope and apocope are major sources of morphological alternation, and perhaps in consequence both are subject to considerable analogical reformation. Such changes in connection with apocope are discussed under (1) below, with syncope under (2) below, and with both under (3) below.

(1) The most prominent cases concerning apocope are in nWS, where 1sg.pr.ind. of verbs is usually *-u* (or *-o,* see §6.57). Theoretically this should result in a variation whereby the inflexion should be apocopated after a heavy syllable, that is, in strong verb classes I–III, VII, but preserved after a light syllable. But the apocope is levelled away in all cases, giving forms such as Merc *drīfu*, Nbr *drīfo* 'I drive out'. The regularity of the change suggests this is a morphologically defined restriction on apocope, rather than simple analogy from short-stemmed forms such as *fearu*, *færo* 'I go'. Other examples of levelling of apocope can be found in nom.acc.pl. of neuter strong nouns, where *-u* may be reintroduced after a heavy syllable. This is especially frequent after a syllabic consonant, hence developments of the type **tunglu* > *tungl* 'stars' show either epenthesis > *tungol* or restoration of *u* > *tunglu*. Similar forms are *tācnu* 'tokens', *wǣpnu* 'weapons', *wundru* 'wonders'.[1] Occasionally *-u* is extended to positions after two light syllables, hence WHom 6.22 (also in some other late texts) *weredu* 'troops'. Elsewhere analogical forms are rare.[2]

(2) Where /i/ or /u/ occurs in a final closed syllable, then vowel loss does not normally occur, see §6.20 and n1. However, in WS and Kt under WS influence, vowel loss does occur regularly in 2,3sg.pr.ind. of weak class 1 and strong verbs, hence *dēmst* 'thou judgest', *rītt* 'he rides', etc. (with consequent simplifications of the consonant clusters which arise, see §§7.77ff.). The change is further extended so that such vowel loss occurs after light syllables also, hence *birst* 'thou carriest', *cymþ* 'he comes', etc. A similar type of analogical extension of syncope occurs in the WS superl. forms *ġingsta* 'youngest', *hīehsta*, *hyhsta* 'highest', *lǣsta* 'least', *lengst* 'longest' (LWS only), *strengsta* 'strongest', *wyrsta* 'worst', *ieldsta, yldsta* 'oldest', and thence are derived forms with zero inflexion, such as *ġingst*. Somewhat different, however, is vowel loss in WS past parts. such as *ġesend* 'sent'. Here the syncope which is regular in inflected forms, such as *ġesende*, see §6.19, is extended to the uninflected form *ġesended*.

(3) In trisyllabic forms where the vowels of the second and third syllables are both high, considerable confusion reigns. Thus, in the type **hēafudu* where the regular development should be to *hēafdu*, alternative forms *hēafodu*, cf. nom.sg. *hēafod*, and Ps(A) *hēafud*, cf. *word*, occur.

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[1] On the other hand, where in the same type the first syllable contains a short vowel, for example, **wætru* 'waters', the regular development shows variation, for example, both *wæter* and *wætru*, the latter often also with later epenthesis to *wæteru,* similarly *wolcenu* 'clouds'. Which development occurred was no doubt dependent upon varying assessments of the weight of the first syllable.

[2] Two forms which are difficult to explain are *bet* 'better', *ymbe* 'about', beside *ymb*. EpGl, ErfGl 440 *aetgāēru*, *aetgaru*, CorpGl 922 *ætgāēru* 'spear' is probably

nom.sg. from Gmc *-_ijō_, see Dahl (1938: 148) and references therein, Campbell (1959: §591n2). RuneAuzon _fisċflōdu_ ‘fish-flood’ may be acc.sg. _n_-stem, see for this suggestion and discussion of earlier proposals Ball (1988: 110–11).

6.25 Consonantal /j/ appears to have been lost in the same set of circumstances as /i, u/, and this is the explanation of, for example, weak class 1 verbs such as _fremman_ ‘perform’ < *_fremmjan_ < *_framjan_ and forms of _ja_-, _jō_-stem nouns such as _cynna_ ‘race’ gen.pl., _synna_ ‘sins’. There is a marked contrast, however, between forms such as _cynn_ nom.pl. < *_kunnju_ and _wītu_ ‘punishment’ nom.pl. <*_wītiu_. The latter is explained by the assumption that apocope was earlier than syncope, but it is difficult to find grounds for asserting that loss of /j/ in similar situations was earlier yet. More plausible than any chronological explanation is one which relies on the phonological character of these changes. It is notable that syncope and apocope reduce the number of syllables by one, and it may be that there was a general constraint that no word should have a reduction in length of more than one syllable. All the forms discussed in this and the preceding sections would be explained by such a constraint.[1]

[1] See Campbell (1959: §353n5) for an alternative, but unclear, explanation.

IV Shortening

6.26 As described in §6.13, the processes of syncope and apocope of short vowels in early OE were paralleled by a shortening of long vowels in unstressed syllables. The consequence of all these processes was that the earlier contrast in length which had been found in unstressed as well as stressed syllables is no longer found in unstressed syllables by the time of the earliest texts.

6.27 Long vowels in unstressed syllables could remain in proto-OE under a variety of circumstances:

(1) The Gmc vowel was originally trimoric (usually because of contraction of a bimoric vowel with an immediately following unstressed vowel).[1] The most frequent or clearest examples are:[2] nom.pl., acc.pl., gen.sg. of _ō_-stems, for example, *_gibōoz_ > *_gibō_; the gen.pl. of all nouns, for example, *_dagōo_ > *_dagō_; nom.sg. of masc. n-stems, for example, *_gumōo_ > *_gumō_.

(2) By Siever’s Law (see Collinge, 1985: 159–74) Gmc *-_ja_- developed as *-_ija_- after a heavy syllable, for example, *_andija_. In _ja_-stem nouns the sequence developed as *-_ī_ with loss of final *-_a_, for example, *_andī_. The details are uncertain, but it is simplest to suppose that *-_ī_

developed too late for Gmc shortening to take place, cf. Luick (1914–40: §297A1), Campbell (1959: §356.3).

(3) Long vowels also remained either finally before a consonant or medially. Examples finally include: weak verb class 2 forms such as **lufōs*, **lufōþ*, **lufōd*, **lufūd*; superlatives, such as **blindūst*, occasional **blindōst*; 3pl.pr.ind. as in **rīdanþ* > **rīdōþ*; occasional gen.dat.sg. of old *īn*-stems, such as **strangīniz* > **strangī*; the formative elements *-*īg*, *-*īn* (diminutive and adjectival), *-*ūþ* (of whatever source), cf. OE *mihtiġ* 'powerful', *ċicen* 'chicken', *stǣnen* 'of stone', *fisċoþ* 'fishing'. Examples medially include inflected forms of those types cited immediately above.[3]

(4) In late Gmc the diphthongs */ai, au/ were monophthongized to */aː, oː/ in unstressed syllables, with consequent fronting of */aː/ > */æː/. These monophthongizations must, of course, take place before the usual development of the two diphthongs to */ɑː, æu/, see also §6.29. Examples are found in the pr.subj. of all verbs, for example, **helpǣ*; dat.sg. of *a*-, *ō*-stems and fem. strong adjs., such as **stānǣ*, **gibǣ*, **blindrǣ*; masc.nom.pl. of strong adjs., such as **blindǣ*; and the gen.dat.sg. of *u*-stems, such as **sunō*.[4]

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[1] It is unnecessary to posit 'IE abnormal intonation' (*Schleifton*) to account for these long vowels in proto-OE, see especially Lane (1963). See further, however, n2 below. For clarity and to avoid confusion with *Schleifton*, the Germanic trimoric vowels are indicated here by a long vowel + identical short vowel, for example, *-*ōo*.

[2] Not all these cases can safely be classified as trimoric in Germanic, but the problem is extremely difficult and controversial. Lane (1963) provides one view and an extensive bibliography, see also Stiles (1988a).

[3] The gen.pl. of fem. *n*-stems falls under (1) above, that is, *-*anōo*.

[4] Also to be taken here is OE *eahta* 'eight', cf. Goth *ahtau*.

6.28 By §6.27 the following long vowels originally existed in OE unstressed syllables: */iː, uː, æː, oː/. Under shortening the first three of these merely lost their length, giving */i, u, æ/.[1] Hence typical developments of the types discussed above include: **andī* > **endī* > **endi* 'end',[2] **blindūst* > **blindust* 'most blind', **stānǣ* > **stānæ* 'stone', and so for all other examples involving these vowels. In the case of */oː/, however, the shortening was to /ɑ/, which then remained in OE, for example, **gumō* > *guma* 'person', **dagōs* > *dagas* 'days', and so for the other examples in §6.27.

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[1] For later developments of these vowels in OE, see §§6.46ff.

[2] The relative chronology of syncope, apocope, and this shortening demonstrates that the shortening must be later than *i*-umlaut, see §§6.23, 33.

6.29 Essentially the same processes as those described above occur in the second elements of original compounds when they become obscured and hence lose secondary stress. However, in such cases the developments were clearly dependent upon the rate of obscuration. Examples which are either early or chronologically indeterminate follow the patterns of §§6.27–8, for example, *-*līk* > -*liċ*, as in *dæġliċ* 'daily', etc., *fulwiht* 'baptism' < *-*wīht* 'consecration', *æfest* 'malice' < **afūnsti-*, *earfeþ* 'trouble' < **arbaiþ-*, *ēored* 'troop' < **eohraid*, cf. §6.5 for alternative developments of the last two forms, where loss of stress is later than monophthongization of */ai/. In the case of *fultum* 'help' */o/ < */oː/ < Gmc */au/ has been raised to /u/ before a nasal, see §6.4, and the same occurs with shortening of */ɑː/ in *andluma* 'utensil' beside *andlōma*. If obscuration of the compound was later than monophthongization of */ai/, then naturally shortening would be to /ɑ/, which would then remain. This is particularly characteristic of adverbs with second element *ā* 'ever', such as *āwa* 'always', *ġēna* 'yet', *ġȳta* 'yet', *sōna* 'soon'. The alternative forms *āwo*, *ġēno* are due to the developments in 'tertiary stress' discussed under §6.4.

6.30 If obscuration of the compound was later than described above, then diphthongs whether originally long or short usually developed as the nearest short vowel corresponding to either the first or the second element, cf. the examples of diphthongs resulting from back umlaut in §6.11. Examples from /æɑ/ include: Ru1 *ānlepe*, Li *ānlapum* 'single', ÆLS 197 *racentægum* 'fetter' dat.pl., nWS *þah* 'although'. Examples from /eo/ include: Ch 1497.2 *hēaderhundas,* LawRect 4.2 *hēadorhund* 'deer-hound', Ps(A) *lādtow*, 'leader' (4×),[1] Li *lāruu*, Ru2 *lārow* 'teacher'. For examples from /io/ due to breaking see §6.8. The sound represented by EWS ⟨ie⟩ appears to have developed to /e/, hence *ānlepe*, cf. above, *ǣwerdla* 'damage' beside *ǣwyrdla*, *cyneġerd* 'sceptre' (rare, alongside usual *cyneġyrd*, see Borowski, 1924: 61)*, fulteman* (not LWS) 'assist'.

[1] Also DurRitGl 3.3 *hlāttu*.

6.31 Where the original long vowel is final in a nominal first element of a compound, then it usually[1] remains after a single syllable, even when heavy, for example, *endeleas* 'endless', *lǣċecræft* 'leech-craft', *rīċedom* 'kingdom', but it is syncopated after two syllables, for example, *ǣrendwreca* 'messenger', *cāserdom* 'empire'.[2] Where, however, the first element of a compound is an adjective, the vowel is more often syncopated,[3] hence *cēnliċe* 'keenly' < *cēne, clǣnness* 'cleanness' and other forms cited in Campbell (1959: §359). But many such forms show variation, for example, *ēċnes* 'eternity', *ēċeliċ* 'eternal'; *mildheort* 'kind-hearted', *mildeliċ* 'merciful'; *wilddēor*, *wildedēor* 'wild animal'; for other similar forms and also forms where the first element is prefixed by *ġe*-, such as *ġedæft(e)liċe* 'deftly', see again Campbell (1959: §359).

[1] But for cases involving ō-stem nouns see §6.15n1.

[2] Where the connecting vowel is preceded by a resonant, as in the type represented by *efenliċ* 'even', the same development occurs, cf. *efne* 'evenly', but there is then either vowel epenthesis or syllabification of the resonant, see further §6.41.

[3] Examples of syncopation where the first element is nominal include compounds of (*ġe-*)*mǣre* 'boundary', Ch 413.4 *mǣrpōl* 'boundary pool', Ch 911.4 *ġemǣrtrēow* 'boundary tree', LWS *stiċmǣlum* 'in pieces', *yrfweardnys* 'inheritance', both beside forms with older *styċċe-*, *yrfe-*.

6.32 Historically the long medial vowels subject to shortening under §§6.27–8 were secondary-stressed after a heavy syllable, see §§2.86–7 and references. Under shortening the secondary stress should be lost and therefore it would be expected that syncope of the short vowel would take place after a heavy syllable.[1] Such syncope is in fact mainly restricted to Angl dialects, hence PsGl(A) 44.15 *gyldnum* 'golden', also CP 171.21, Li, Ru2 *mæġdne(s)* 'maiden' gen.dat.sg., PsGl(A) 80.3 *mōnþes* 'month' gen.sg., Ps(A), Nbr *nētna* 'animals'. In WS regular syncopation of such vowels is found regularly only in *mōnaþ* 'month'. A similar, but more restricted, situation holds for adjectives in *-iġ*, from original **-īg*, such as Ru2 *hefġe* (2×) from *hefiġ* 'heavy'.[2]

[1] Syncope of the connecting vowel in the past of weak class 2 verbs does not, however, occur in any dialect, hence *ascode*, *ascade* 'asked'. The non-existence of the type ***rēafde* 'plundered', cf. PsGl(A) *rēafade*, suggests that the failure of syncope is morphological, rather than due to the unacceptability of any resulting consonant cluster.

[2] But syncope of *-iġ* < **-æg* < **-ag* is regular, see §§6.15, 16 and n1. It is possible that the rare examples of the type *hefġe* are due to the influence of *hālġe*, etc., and that normally the sequence **-īġ* developed through *-iġ* to *-ī*, thus resisting syncope.

6.33 It should be deducible from the variety of developments cited in the preceding sections that vowel shortening was a process which occurred over a period of time, but that that period of time was roughly contemporaneous with the time of syncope and apocope. This would be consistent with the claim that vowel shortening is merely a different manifestation of the same phonological process, namely the reduction in length of unstressed vowels. Note, however, that the normal situation is that shortening was not subsequently followed by apocope, for example, *ende* (§6.28), although the situation with regard to syncope is more variable in terms of both morphology and dialect, see especially §§6.31–2.

V Epenthesis and syllabification

6.34 By the time of the very earliest texts two apparently similar but in fact phonologically and dialectally distinct changes occurred which resulted in the epenthesis of an unstressed vowel. The first type of change, a genuine vowel epenthesis (see Girvan, 1931: §180), seems to have been caused by the awkwardness of final[1] consonant clusters of the type liquid + labial or velar consonant, hence *wylif* 'she wolf' < *wylf*. The second type of change involves resonants (/l, r, m, n/) which occur finally after a consonant due to the loss of an unstressed vowel either in Gmc or in proto-OE. In such circumstances either the resonant could syllabify or an unstressed vowel could occur before the resonant, the whole process being very similar to that in PDE, hence OE *bēacn, bēacon*, cf. PDE *beacon* = /biːkn̩, biːkən/. Clearly similar to this process is a vocalization of /j, w/ > /ij, uw/, for example, *herġas* > *heriġas* 'armies'. The first type of epenthesis is discussed in §§6.35–7, the second in §§6.38–41.

[1] The only example with such epenthesis in a consonantal onset is the rather odd Inscr 8.2.3 *berōþor* (2×) for *brōþor* 'brother'. The attempt by d'Ardenne (1939) to justify the form – alongside her explanation based on error by the inscriber – appears somewhat misguided.

6.35 In Nbr, and to a lesser extent Merc, in final consonant clusters containing a liquid plus a non-homorganic consonant, usually a velar fricative and possibly followed by a further consonant, an epenthetic vowel is sometimes inserted between the liquid and the following consonant. Most commonly the epenthetic vowel is a high vowel agreeing in backness with the preceding stressed vowel,[1] but occasionally *e*, *a* are found after a nonhigh stressed vowel. Examples from early texts include: RuneAuzon 2 *ferġenberig* 'mountain-side(?)', 9 *wylif* 'she-wolf', LRid 6 *ðerih* 'through', 13 *aerigfaerae* 'flight of arrows', RuneMortain 1 *ġewarahtæ* 'made', ErfGl 996 *hrōfhuyrihta* 'wood-worker', EpGl 652, CorpGl 1284 *bearug* 'pig',[2] Ch 190 (also other charters of varying dates) *Hēanbyrig*, Bede † *Tilaburug*, LVD † *Aluch-*, † *Eorup-*, LVD, Bede † *berec(h)t*, also the Kt Ch 21.5 (Stowe) † *Bericht-*, and Ch 293.11,13 † *Alah-*, † *Walahhere*.

[1] For the present phenomenon, and also for the syllabification phenomena of §6.38, a diphthong must be counted as a back vowel.

[2] For the assumption that *bearug* was formerly monosyllabic, that is, *bearg*, see now Ball and Stiles (1983: 12–13, App. and references therein) against Campbell (1959: §360n2).

6.36 In later texts the phenomenon appears to be mainly restricted to Nbr. Forms similar to those above include: Li, Ru2 *burug, byriġ* dat.sg., Li *worohton*. Additional forms include LkGl(Ru2) 9.62 *suluh* 'plough', MkGl(Ru2) 8.38 *arognisse* 'profligacy', JnGl(Li) 2.14 *culufro* 'dove', MtGl(Li) 28.4 *fyrihto* 'fear', DurRitGl 9.13 *forohtandum*, Li *wyrihta*, *-e* 'workman', JnGl(Ru2) *berehtnað* 'makes bright', JnGl(Ru) 9.28 *aweriġdun* ‘they cursed’, JnGl(Ru2) 2.9 *inberiġde* ‘tasted’, Ru2 *fyliġde, fyliġdun* ‘followed’, MkGl(Ru2) 26.34 *sweriġe* ‘swear’.[1] In Li the development of /ij/ > /i/, see §7.70n1, is found in forms such as *sweria, heriað* ‘they praise’.

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[1] Here *fyliġde, sweriġe*, etc. should not be confused with the similar forms in LWS discussed in §6.44.

6.37 There is a scattering of forms similar to those of §6.36 in LWS. Typical examples include: ÆCHom I 226.25, ÆLS (Basil) 222 *buruh* ‘city’, ÆCHom I 138.4 *culufran* ‘dove’, BenR *yleca, ilece* ‘same’, Mt(WSCp) 11.2 *weoruc* ‘work’.

6.38 When in OE one of the resonants /l, r, m, n/ comes to stand finally after a consonant, then, as in PDE, that resonant syllabifies (to [l̩, r̩, m̩, n̩]). But, again as in PDE, an epenthetic vowel may appear before the resonant as an alternative to syllabification. In apparent contrast to PDE, however, the epenthetic vowel is usually *e* (*i* in early texts) if preceded by a front vowel, and *o* (earlier *u*) if preceded by a back vowel (see also §6.35n1). However, the use of *e* becomes frequent even after back vowels (see the figures in §6.40), and this would suggest that the epenthetic vowel is generally to be interpreted as /ə/, see further §§6.59–62.[1,2]

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[1] However, in early texts the use of ⟨e⟩ after back vowels may be because ⟨el, er, em, en⟩ were used as digraphs for syllabic consonants. Later, however, it is more likely that it represents /ə/ as above.

[2] This is presumably in part the reason for the appearance, albeit less frequent, of ⟨o⟩ after a front vowel, although it is notable that most such cases involve /r/, for example, PsGl(A) 77.10 *bitur* ‘bitter’, note also GuthA, B *bittor* (2×), *fefor* ‘fever’ (frequent alongside *fefer*), JnGl(Ru2) 4.52 *ġestordæġe* ‘yesterday’, *pipor* ‘pepper’ (more frequent than *piper*), and, before /m/, rare *wæstum* ‘fruit’.

6.39 In early texts epenthesis, although common, is less frequent than retention of the consonant alone and does not occur with [m̩]. Thus EpGl, ErfGl have forms such as 111 *seġil-* ‘sail’, 272 *bebir* ‘beaver’, 636 *apuldur* ‘apple-tree’, 919 *-bāēcon* ‘beacon’, against the more frequent type exemplified by 84 *hræġl* ‘robe’, 399 *bebr*, 567 *seġn* ‘sign’, 326 *thuachl* ‘washing’, 638 *apuldr,* 992 *-bēacn*, 777 *uuorsm* ‘pus’.[1] The distribution of such forms in CorpGl is very similar, but note CorpGl 1152 *þuner* ‘thunder’, an early example of ⟨e⟩ after a front vowel. Elsewhere Bede has *-ċastir, Eorcun-* in names. There is no need to assume that the forms without an epenthetic vowel are analogical, as do Luick (1914–40: §318), Campbell (1959: §363), for it is more probable that scribes were somewhat uncertain as to the most appropriate spelling.

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[1] ErfGl 777 *uuorsin* is an obvious error for *uuorsm*.

6.40 Typical examples of the varying forms in later texts are:[1] *æpl*:*æppel* (1:5) ‘apple’; ***æcr*:*æcer* (0:6) ‘field’; *hræfn*:*hræfen* (0:0) ‘raven’; *fæþm*:*fæþem* (0:0) ‘embrace’; *fugl*:*fugol*:*fugel* (0:4:10) ‘bird’; *wundr*:*wundor*:*wunder* (0:61:3) ‘wunder’; *wolcn*:***wolcon*:*wolcen* (11:0:0) ‘cloud’; *botm*:***botom*:***botem* (0:0:0) ‘bottom’. It may therefore be deduced that there is a sharp distinction in the treatment of syllabic liquids and syllabic nasals. For the former epenthesis is strongly preferred, whereas for the latter the syllabic nasal is equally strongly represented. The same holds true for syllabic nasals after a long syllable, such as *wǣpn*:*wǣpen* (3:1) ‘weapon’; *wæstm*:*wæstem* (43:0) ‘fruit’; *tācn*:*tācon*:*tācen* (20:0:15) ‘token’; *māþm*:***māþom*:*māþem* (4:0:0) ‘treasure’. Exceptionally, if the preceding consonant is a dental stop, then syllabic [l̩] almost always remains, as in *ādl* ‘disease, *botl* ‘building’, *nǣdl* ‘needle’, *setl* ‘seat’, *spātl* ‘spit’, and epenthesis, as in OccGl 49.304 *setol* (see §6.38n2), is extremely rare.

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[1] The distribution figures below refer to the total frequency of the simple forms in ÆCHom, ÆLS, CP, and Oros. However, a double asterisk before a form has the usual meaning of non-occurrence in OE generally.

6.41 Medially epenthesis before a resonant takes place most commonly in the paradigms of two types of adjectives: (1) *a*/*ō*-stems whose nom.sg. ends in a syllabic resonant, such as *biter* ‘bitter’, *efen* ‘even’, *fæġer* ‘fair’, *hlūtor* ‘pure’, *wacor* ‘wakeful’; (2) *ja*/*jō*-stems whose nom.sg. ends in consonant + resonant + /e/,[1] that is, *fǣcne* ‘deceitful’, *frēcne* ‘horrible’, *dīġle* ‘secret’,[2] *ġīfre* ‘greedy’, *lȳþre* ‘evil’, *sȳfre* ‘sober’, *tīdre* ‘weak’, *þȳstre* ‘dark’. In all these cases, where an inflexion or suffix begins with a non-identical consonant then the resonant does not usually syllabify but instead epenthesis is regular, hence *biterne*, *biternes*, *fǣcnre*, etc., but *fǣcne* acc.sg.masc. < **fǣcn+ne*. This epenthesis is also seen in a few isolated words where the following consonant is part of the stem, such as *lǣwerċe* ‘lark’ (also *lāwerċe*, not to be distinguished in this respect), Wid 112 *Emercan* acc.sg. < **Emrkan*.[3] When the inflexion begins with a vowel, it would be expected that the resonant would be nonsyllabic, hence *bitre*, *bitrum*, etc., but, especially when the resonant is /r/, syllabicity can be retained and an epenthetic vowel introduced, hence forms such as *biterum*, and, similarly in nouns, *æceras* ‘fields’.[4] Elsewhere this type is rare, for example, ÆCHom I 172.2 *fugole* ‘bird’ dat.sg.

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[1] But not if the consonant is itself a resonant of higher sonority, for *dyrne* ‘secret’ shows no epenthesis in Beo 1355 *dyrnra*, or the type *dyrnlïc*. It may be presumed that in such cases /n/ is nonsyllabic.

[2] But the forms here may be from the alternative formation *dīgol*.

[3] In Nbr especially there is a strong tendency for an epenthetic vowel to appear in the preterite forms of weak class 1 long-stemmed verbs ending in a resonant, such as

dēġelde ‘concealed’, *hyngerde* ‘hungered’, *ġetimberde* ‘built’. Elsewhere, and to a lesser extent in Nbr, an alternative development takes place, for which see §6.19n2.

[4] With increasing frequency WS begins to develop epenthetic vowels before /r/ in the gen.dat.sg.fem. and gen.pl. of the strong adjectival and pronominal declensions, for example, *sumere*, *sumera*; *þissere*, *þissera* (< *þisre*, *þisra*). Such forms already occur in CP, Oros, but are frequent by the time of Ælfric.

6.42 The type of epenthesis described in 6.35 must be later than *i*-umlaut, since an epenthesized /i/ does not cause umlaut. Furthermore, smoothing has taken place in a form such as *berecht* (not ***beorecht*), and this implies that the epenthesis is later than smoothing. But this theoretical chronology is contradicted by the existence of epenthesis in the earliest texts. By way of explanation, the examples of §§6.36–7 probably demonstrate that there was a potential throughout the OE period, not always realized, for the epenthesis, since these examples are often new ones from the end of the tenth century or later. Epenthesis before a resonant must, of course, be later than apocope, since apocope is frequently the source of syllabic resonants. On the other hand, examples of the change are to be found in the earliest texts, and later evidence would suggest that it is a persistent and continuing variation in OE.

6.43 A third type of epenthesis, occurring almost exclusively in WS and more frequently in later texts, has apparently close similarities to the epenthesis before a resonant. This third type occurs when the approximants /j, w/ are found immediately after a consonant, for then their vocalic counterparts /i, u/ may develop between the consonant and the approximant. Thus, for example, we find *heriġas* ‘armies’, *ġearuwe* ‘ready’ nom.pl., for earlier *herġas, ġearwe*. It is noticeable that the change only takes place after light syllables,[1] and the most reasonable explanation is that only after a short syllable were /j, w/ ambisyllabic in this position, and that the epenthesis had the function of breaking up the awkward consonant cluster.

[1] A form such as PsGl(I) 99.3 *lǣsuwe* ‘pastures’ must be regarded as exceptional.

6.44 Typical examples of this epenthesis in WS[1] include the following: *byriġ* ‘city’ dat.sg., *byliġ* ‘bag’, *fyliġan* ‘follow’, *heriġas* ‘armies’, *miriġþ* ‘joy’, and short-stemmed verbs of weak class 1 with stem-final /r/, such as *heriġan* ‘praise’, *neriġan* ‘save’, *weriġan* ‘defend’, etc.; inflected forms of *wa*-stem nouns and adjectives such as *searuwa* ‘device’ gen.pl., *ġearuwe* ‘ready’ masc. (also fem. *wō*-stem) nom.pl., *ġeoluwe* ‘yellow’, etc., *wō*-stem nouns (also adjs., see *ġearuwe* above), such as *beaduwe* ‘battle’ dat.sg., *sinuwa* ‘sinews’, and the fem. *n*-stem *swaluwe* ‘swallow’. In the case of /ij/ this can then simplify to /i/, see §7.70n1, for example, *byri* ‘city’, *fylian* ‘follow’, and many others. In the case of weak verbs such as *heriġan* the spelling ⟨herian⟩ is, especially in earlier texts, ambiguous between the present development and the use of ⟨i⟩ to represent /j/, see §2.76. The gradual emergence of spellings indicating epenthesis can be quite well traced in WS. Thus, for example, in CP and Oros ⟨byrġ⟩ spellings outnumber ⟨byriġ⟩ spellings by about 2: 1, whereas ⟨byrġ⟩ is not found in ÆCHom, where ⟨byriġ⟩ is regular alongside a scattering of ⟨byri⟩ spellings.

[1] Outside WS the epenthesis is rare. CollGl 721 *ġerewe* 'ready' could be due to WS influence on a late Kt text. Ru1 has MtGl 26.53 *heriġas* 'armies', 14.71, 5.36 *sweriġa*, *swerigæ* 'swear', MtGl 9.17 *beliġas* 'bags' (2×, alongside *belġas* 2×), but these forms could either be due to the epenthesis described in §6.36 or be examples of further WS influence in this text.

6.45 A type of epenthesis rather different from any discussed above appears especially in LWS texts in compound and other derived forms. The process can be exemplified by a word such as *bærefōt* 'barefoot', where an original nonhigh vowel was syncopated, see §6.15, giving *bærfōt*. The process is found also with heavy *a*-stems, for example, *cūðeliċe* 'certainly', *n*- and other consonant stems, for example, *nihteliċ* 'nightly',[1] the prefix *æl*-, hence PrudGl 1.953 *ælewealdene* 'almighty', and various personal and place-names, such as ChronE 664.5 *Cōleman*. Outside WS DurRitGl has Abbrev 186 *rehteliċe* 'rightly'. For further details see Campbell (1959: §367). The cause and significance of these forms are both doubtful. They may be due to the influence of variation elsewhere, see §6.21, or they might be rhythmically based, but it seems impossible to be precise.

[1] But EpGl 673 *necti*-, 857 *nectægalae* 'nightingale' are probably gen.sg. forms, see Pheifer (1974: §78).

VI Mergers of unstressed vowels

6.46 The consequence of the various changes described in earlier sections is that there had developed in OE a system in unstressed syllables of five contrasting short vowels: three front: /i, e, æ/; and two back /u, ɑ/.[1,2] This system must have been still in existence at the time of both *i*-umlaut and syncope and apocope, given, for example, the distinctions between high and nonhigh vowels in all of these changes. However, just as the settlement and post-settlement periods saw a general reduction in quantity of OE vowels, there set in train by the time of the earliest texts at the latest a reduction in qualitative differences between unstressed vowels, eventually producing by ME a system where the principal unstressed vowel was /ə/, see Jordan (1974: §§133ff.). The historical evolution of most of the mergers which may be classified under this rubric is generally well marked in the manuscripts, but conservative spelling traditions can sometimes hide the spread of particular mergers.

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[1] /ɑ/ is from Gmc */oː/, see §6.28.

[2] There must be some doubt as to whether /i/ and /e/ were indeed phonemically contrastive, and [e] could well be regarded as an allophone of /i/, see Stiles (1988b: 339–40).

6.47 There appear to be two distinct processes at work in the reduction of qualitative differences. On the one hand there are simple mergers of previously separate phonemes, the first of which results in a single front vowel phoneme, which we may label as /e/. On the other hand, there is a strong tendency for high unstressed vowels to be lowered. This, together with the mergers described immediately above, leads to a triangular vowel system of the type /e, ɑ, o/, although see the detailed discussions below for reservations concerning this system. There then follows a merger of the back vowels to a back vowel otherwise of indeterminate quality. Here we shall indicate that single back vowel as /ɔ/, where the distinctive symbol serves only to disambiguate between that merged vowel and its sources. Finally, the unstressed front and back vowel merge, presumably as schwa /ə/. The structural shifts in the vowel phonemes of unstressed vowels which have just been outlined form the basis for the organization of the discussion in this section.

(a) /æ/ > /e/

6.48 At about, or perhaps slightly earlier than, the time of the earliest texts, unstressed /æ/ completely merged with unstressed /e/. In most OE, forms which originally had /æ/ are indistinguishable from forms with earlier /e/, being consistently spelled ⟨e⟩. The most frequent occurrences include the following: nouns – gen.dat.sg. of *a*-stems, *stānes*, *stāne*; acc.dat.sg. of *ō*-stems, *lāre*;[1] nom.sg. of fem.neut. *n*-stems, *tunge*, *ēaġe*; adjectives – nom.pl.masc., *blinde*; the adverbial suffix *-e*, *hearde* < *heard* adj.; verbs – pr.subj., *helpe*;[2] sg.pa.ind. of weak verbs, *fremede*, *fremedest*, *fremede*; pres.part. *rīdende*, pa.part. of strong verbs, *riden*.[3,4,5] It might be expected that the merger of /æ/ with /e/ would have the consequential effect of fronting /ɑ/ (>/a/). This, however, is not true, hence regular *guma* 'man', *dagas* 'days', etc. and rare EWS *-onne* infl.inf. alongside usual EWS *-anne*.[6]

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[1] Also the gen.sg. of most *ō*-stems, which might be due to the identity of the acc.pl. and gen.sg. in the weak fem. declension, see Campbell (1959: §585), or from the dat.sg., see Dahl (1938: 133–4). Clearly a resolution of the problem is difficult, but the dat.sg. is the more obvious choice.

[2] And hence also WS 1sg.pr.ind. *rīde*, especially if this is from the subj. via contracted verbs, see Bazell (1939), Cowgill (1965), Stiles (1988b: 340–2).

[3] But /æ/ here is from inflected forms, see §6.2.

[4] Naturally the merger also occurs when /æ/ in the second element of a compound becomes unstressed, for example, *ǣfest* 'lawful' beside *ǣfæst*, *ēarfeð* 'strife', *ēored* 'troop', see §6.29, *hīred* 'household', Li *ġenēoleċa* 'approach' (< *-lǣċan*), compounds of *ærn* 'house', such as *bēodern* 'refectory', and various others.

[5] See §6.51 for the suffix *-æġ*.

[6] The form is analogical on the basis of the inf. *-an*. Elsewhere regular *-enne* displays the normal phonological form through *i*-umlaut.

6.49 The very earliest texts have many spellings reflecting earlier /æ/. Thus in eNbr CædH has gen.sg. *-rīcaes*, *metudæs*, *-cynnæs*, *ġihuæs*, BDS has *yflaes*, and typical other forms include CædH 4 *astelidæ*, LRid 5 *hafæ*,[1] 11 *uīdæ*. In the eNbr runic inscriptions are RuneAuzon 4 *hrōnæs*, 10 *hīæ*, etc., RuthCr 44 *riiċnæ*, 45 *hēafunæs*, etc. But alongside these are forms with ⟨e⟩, such as CædH 6 *hrōfe* dat.sg., *heben* (cf. 1 *hefaen-*), BDS 1 *fore,* 2 *sīe*, RuthCr 40 *walde*. Further, there are examples possibly with ⟨æ⟩ for ⟨e⟩, such as RuthCr 48 *bismærædu*, RuneAuzon 9 *ġibrōþær*.[2] BedeH(M,L) preserves *æ* well, and in LVD ⟨æ⟩ is more common than ⟨e⟩. In the eMerc glossaries EpGl has 192× ⟨æ⟩ (including ⟨æ⟩), 8× ⟨e⟩ in final syllables; 30× ⟨æ⟩, 16× ⟨e⟩ medially. The parallel figures for ErfGl are 182× ⟨æ⟩, 40× ⟨e⟩; 16× ⟨æ⟩, 35× ⟨e⟩ (Pheifer, 1974: §63). In CorpGl ⟨e⟩ is regular everywhere, with few examples of ⟨æ⟩, see Wynn (1956: §85). The earliest charters, up to *c.*775, have examples of ⟨æ⟩, such as Ch 8.2 (679) † *Uuestanae*, Ch 21.1 (700 or 715) † *Limingae*, Ch 106.2 (767) † *herġae* 'temple' dat.sg., Ch 59.6 (770) † *Saluuerpæ*, but even these forms occur beside others such as Ch 21 † *Wīeġhelmes*, † *Mēġuines*, Ch 31.5 (*c.*767) † *Byrnhames*, † *Uuealhhunes*. This suggests that the merger had already begun by the beginning of the eighth century and was complete before the end of that century, cf. §6.53.[3]

[1] Cf. §6.48n2. The form is unusual in Nbr.

[2] See, however, §3.30.

[3] Examples of ⟨æ⟩ in lNbr and Ru1 are of different origin, see §6.62.

(b) /i/ > /e/

6.50 At an only slightly later date than the merger of /æ/ with /e/, see §6.53 for discussion, unstressed /i/ was lowered to /e/ in most environments. Examples of earlier /i/ then become indistinguishable in spelling from examples of earlier /e/ (and earlier /æ/). The most frequent occurrences are: nouns – nom.sg. of *i*- and *ja*-stems, *wine*, *ende*; adjectives – nom.sg. of *i*-, *ja*-stems, *freme*, *wilde*; the superlatives from earlier **-ist*, *yldest*; verbs – 2,3sg.pr.ind., *rīdest*, *rīdeð*; pa.subj., *rīde*; the connecting vowel of weak class 1 preterites, *fremede*; prefixes – *be*-, *ġe*-;[1] prepositions – *be*, *embe*; particles – *ne*, and the many examples of epenthetic /i/ discussed in §§6.34ff.[2]

[1] Also *te-* < *ti-*, as in CP 49.11 *teflēowe* ‘separate’ pr.subj.sg., 443.33 *teweorþanne* ‘overthrow’, also ErfGl 343 *teċīnid* ‘split’, 344 *tedridtid* ‘trampled upon’, cf. EpGl 195 *tislōg* ‘destroyed’.

[2] As with /æ/, lowering of /i/ also occurs in the second element of a compound when this becomes unstressed. Examples include: *ǣrest* ‘resurrection’ (beside *ǣrist*), *endlefan* ‘eleven’ (beside *endlifan*), *enetere* ‘one-year-old’ < **ǣnwintre* (beside *enitre*), *fyrwet* ‘curiosity’ (beside *fyrwit*). Lowering to /e/ from /y/ can be seen in *æfest* ‘malice’, *cynren* ‘generation’ (beside *cynryn*), *nosterl* ‘nostril’ < *nosþyrl*), *ymbhwerft* ‘circle’ (rare beside *ymbhwyrft*). LWS substitutions of ⟨y⟩ for ⟨e⟩ are particularly frequent in PsGl(C) and WSCp, for example, *fædyr* ‘father’, *hǣlynd* ‘saviour’, and may be the result of Kt influence, cf. §§5.194–5.

6.51 A major exception to the lowering is found with suffixes where /i/ is followed by a palatal or palatalized consonant. This is most obviously the case with /j/ and palatalized velars; also to be included here is the velar nasal in the group *-ng*, which may equally have been palatalized. Consequently, /i/ regularly remains in the suffixes *-iċ*, *-liċ*, *-iġ*, *-iht*, *-isċ*, *-ing*. Typical examples of each are: Angl *ēowiċ* ‘you’ acc.pl., *heofonliċ* ‘heavenly’, *mihtiġ* ‘mighty’, *stǣniht* ‘stony’, *mennisċ* ‘human’, *æþeling* ‘prince’. Occasionally lowering does occur under the influence of a following back vowel and the subsequent retention of velar articulation of the consonant, for example, Bede *heofonlecan* (16×), *heofonlecum* (2×), Mart 1.55 *mihtegu*, Ch 174, Ch 377 *stānehtan* (see §6.10n2), Bede 2 7.118.6 *mennesca*,[1] ÆCHom I 232.3 *cynengum* ‘king’ dat.pl. In the case of forms such as *mihteliċe* ‘mightily’ (ÆCHom, ÆLS 6×, beside *mihtiġliċe* 12×), the development is through monophthongization of /ij/, see §7.70 and n1, and shortening to /i/, which is then regularly lowered.[2]

[1] Note the rather odd PsCa(A)1 13.3 *mennesċes*, also at HomS 70.V.

[2] The variation in the suffix *-nes*, *-nis* might be relevant here, but it seems more probable that the variation goes back to variation in Gmc, especially since there are dialectal differences in OE also. Thus *-nis* is mainly Angl, whilst *-nes* is mainly WS, see Brunner (1965: §142A).

6.52 The developments of §§6.50–1 would suggest that unstressed /i/ and /e/ do indeed merge as the phoneme /e/, but that that phoneme then has an allophone [i] before palatals. This is confirmed by the development of the suffix *-æġ*, which shifts to *-eġ* by §6.48. In this environment we would expect the allophone [i] to appear, and indeed this is the regular spelling, for example, *bōdiġ* ‘body’, *hāliġ* ‘holy’, *moniġ* ‘many’, and other forms cited in 5.85.10b. This development is particularly important in weak class 2 verbs, such as **lufōjan* > **lufejan* (*i*-umlaut and shortening) > *lufijan* (⟨lufian⟩) ‘love’.

6.53 In the earliest texts /i/ is preserved in spelling with slightly more frequency than /æ/. Thus in eNbr texts we find: CædH 2,3 *ġi-* prefix, *ēċi* 'eternal', *dryctin* 'lord' (both 2×), 5 *āērist* 'first', BDS 1 *uuiurthit* 'he becomes', 5 *dōēmid* 'determined', LRid 3 *bi-* prefix, *ni* 'not' (4 or 5×), 7 *hrisil* (< *hrisl*) 'shuttle', 9 *uyrdi* 'fate' gen.sg., and various other forms. In the runic inscriptions examples include RuthCr *ġi-* (4×), 45 *ni*, 48 *bistēmid* 'moistened', RuneAuzon *ġi-* (2×), 10 *wylif* (< *wylf*) 'she-wolf', and others. On the other hand, there are signs of lowering in LRid 2 *āērest, ni* (2×), RuthCr 39 [*ond*]*ġeredæ* 'he stripped'.[1] In Bede(H) and LVD the situation is not dissimilar from that for /æ/, although ⟨e⟩ is common alongside more frequent ⟨i⟩ in the elements † *Dene-*, † *Here*. In the early Merc glossaries EpGl has 82× ⟨i⟩, 8× ⟨e⟩ in final syllables, 134× ⟨i⟩, 11× ⟨e⟩ in medial syllables, and 52× ⟨i⟩, 13× ⟨e⟩ in prefixes. The parallel figures for ErfGl are 86× ⟨i⟩, 8× ⟨e⟩; 149× ⟨i⟩, 14× ⟨e⟩; 42× ⟨i⟩, 36× ⟨e⟩ (Pheifer, 1974: §63), which are broadly parallel with the situation for merger of /æ/ and /e/, see §5.49. In CorpGl ⟨i⟩ and ⟨e⟩ are about equally frequent (Wynn, 1956: §83). In the early charters ⟨i⟩ spellings are frequent, and ⟨e⟩ spellings only start to appear at about the middle of the eighth century, for example, Ch 24.5 (741?750) † *aeðelhuni* (alongside † *aethilberhtus*), Ch 90.3 (742) *æðelberhti*. ⟨i⟩ spellings are rare after 800. The above evidence would suggest that lowering of /i/ was marginally later than merger of /æ/ and /e/, but nevertheless a strictly eighth-century change.

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[1] CædH has a number of related difficult forms. CædH(M) 2 *maecti* may show retention of /i/, but the form is without *i*-umlaut, cf. CædH(L) *mehti*, also CædH(M, L) 9 *allmectiġ*. This would appear to be due to the influence of the ō-declension, see §5.85(2), in which case final ⟨i⟩ could be regarded as an error for ⟨e⟩ (< /æ/). In contrast, whilst CædH(M) 6 has *hāleġ* 'holy', with /æ/ raised to /e/, but no sign of the development of [i], CædH(L) has *hāliġ*. It becomes difficult to resist the conclusion that the scribes are confused because the sound changes have already taken place. Equally difficult to explain are RuthCr 56 *rōdi* 'cross', RuneAuzon 10 *ċæstri* 'city', both in a locative sense. It is by no means certain that the spellings here can be taken as accurate, *pace* Dahl (1938: 123). The forms are, however, supported by the instrumental forms EpGl 97 *ġitīungi* 'preparation', 109 *mēġsibbi* 'love between kinsmen', see further Dahl (1938: 139–40), Pheifer (1974: §79).

6.54 In lNbr texts there is quite frequent retention of ⟨i⟩ in the prefix *bi-* and, to a lesser extent, *ġi-*, and in Li ⟨i⟩ is also found occasionally in a variety of other forms, such as *miċil* 'great', *cyrtil* 'tunic', *seġni* 'seine', *hidir* 'hither'. The common ME development of the prefix *ġe-* > *i* is occasionally found in late texts, and this development might suggest that here /e/ had generally a somewhat raised allophonic variant.

(c) /u/ > /o/

6.55 The lowering of /u/ > /o/ which is frequently demonstrated in OE texts is phonologically similar to the lowering of /i/, both in terms of the phonetic process and in the phonological result. Clearly the change is simply a lowering, so that there no longer exist any high unstressed vowel phonemes; on the other hand, there is ample evidence, more fully discussed below, that the phoneme /o/ which results from the process has an allophonic variant [u]. Frequent occurrences of the change are: adjectives – superlative *-ost, blindost*; verbs – past.ind.pl. *-on, ridon*, preterite of weak class 2 verbs *-ode, lufode*. Typical examples from individual words include: *hēafod* 'head', *heofon* 'heaven', *werod* 'troop', *atol* 'terrible', *nacod* 'naked'.[1] However, there are several major exceptions to the lowering process, see §6.57.

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[1] The same lowering is of course found in the second elements of obscured compounds with reduced stress, hence *fracoþ* 'bad', *oroþ* 'breath', see §6.5, and perhaps the obscure *ofost* 'haste', cf. EpGl, ErfGl 757 *obust*. The same occurs in the unstressed non-lexical items Ps(A) *ðorh* 'through' beside *þurh* elsewhere and *oþ* 'to' beside very rare *uþ*, although the latter is common as a prefix.

6.56 In the eNbr texts /u/ is preserved almost everywhere, exceptions being the epenthetic vowel in Bede(H) † *Earcon-* beside less frequent *Eorcun-* and LVD *Aebbino*. Otherwise forms of the type CædH *sċylun*, *metudæs*, *barnum*, *foldu* (< **foldun*, see §§7.98ff.), BDS *-snottura*, LRid *uundrum*, *eorðu* (< **eorðun*) are regular. In the early Merc glossaries lowering is indicated in about half of the cases, thus EpGl has 40× ⟨u⟩, 41× ⟨o⟩ medially and finally before a consonant other than /m/ or /ng/, and ErfGl has 49× ⟨u⟩, 30× ⟨o⟩ (Pheifer, 1974: §64). The situation is similar in CorpGl. In later Merc and SNbr texts (Ps(A), Ru1, Ru2) ⟨u⟩ spellings remain very frequently and indeed are regular in Ps(A), and in later NNbr texts ⟨u⟩, although less frequent, is still common alongside ⟨o⟩. Note, however, that the pa.pl.ind. ending is always *-on* in DurRitGl and that *-un* is in a clear minority in Li, thus contrasting strongly with the Merc and SNbr texts, see Berndt (1956: 260–3) for figures. Otherwise ⟨o⟩ spellings are normal, as in the examples cited in §6.55.

6.57 When unstressed /u/ occurred finally before /m/, /ng/, or /k/, or was in absolute finality, or was preceded by stressed /u/, then the process of lowering is, with certain definable exceptions, rarely found. Thus we find dat.pl. *-um,* also the suffix *-sum,* for example, *wynsum* 'pleasant', *māþum* 'treasure', the suffix *-ung*, for example, *lēasung* 'falsehood', *sċotung* 'shooting', the suffix *-uc*, for example, *bulluc* 'bullock', *munuc* 'monk', the nominal inflexion *-u*, for example, *sċipu* 'ships', *faru* 'journey', *sunu* 'son', and various other forms such as *duguþ* 'warriors', *ġeoguþ* 'youth'. But in texts where the 1sg.pr.ind. of verbs is *-u*, then that vowel is subject to the usual patterning of lowering described in §6.56.

6.58 Chronologically the lowering of /u/ must be the latest of the three shifts discussed above, although since WS texts more regularly show the lowering than do Angl texts and since even the earliest WS texts display lowering, it is conceivable that in WS at least lowering of /u/ could have been carried out at a very early date. But the mixture of forms in the early Angl texts is greater than in the other texts, and it is especially notable that the eNbr texts always have ⟨u⟩. This suggests a date perhaps later than smoothing but not later than *u*-umlaut, see §5.103 and n2.

(d) Merger of remaining unstressed vowels

6.59 The changes discussed so far above result in a phonemic system of three unstressed vowels, namely /e/, /a/, /o/, but in the case of both the mid vowels there are important allophones, namely [i] and [u] respectively.

6.60 From the ninth century on, however, the above system is further reduced, firstly by the merger of /o/ and /a/, which is reflected in the interchangeability of ⟨o⟩ and ⟨a⟩ spellings. The merger is particularly well demonstrated in ⟨-an⟩ for pa.ind.pl. *-on*, but other less frequent types include ⟨-on⟩ for the nominal inflexion *-an*, ⟨-a⟩ for the neut.pl. *-u*, ⟨-on, -an⟩ for the dat.pl. *-um*. Such variation only occurs sporadically in CP and Chron of the major EWS texts, but is much more frequent in Oros, see Bately (1980: xlv) for details and discussion. Typical examples of the less frequent types in Oros include: 54.29 *namon* acc.sg., 140.22 *nomon* dat.sg. 'name', 42.26, 56.17 *ġeata* 'gates', 15.38 *sċipa* 'ships', *ġewealdon* (3×) 'power' dat. pl., 54.23 *ǣlċon* 'every' dat.pl., 63.30 *ġifan* 'gift' dat.pl., 97.21 *gōdan* 'good' dat.pl. The same is true of ninth-century Kt texts, where ⟨-an⟩ is frequent in the pa.ind.pl. and other forms include Ch 1188.6 *ġemānon* 'community' dat.sg., 1482.71 *ġeðinga* 'agreement' nom.pl., 1195.6 *fōðra* 'load' nom.pl., 1197.3 *willa* 'I wish', 1508.23 *sunu* 'son' dat.sg. (for *suna*), 1200.12 *dohtar* 'daughter', 1482.60 *alað* 'ale' gen.sg.

6.61 In LWS texts the picture is generally one of extension of the above interchangeability, and the same is true of the other dialects, although in late Kt and Merc texts the dat.pl. remains as *-um*, and the same is largely true of late Nbr texts.

6.62 Probably only shortly after the above merger began to take place the back vowel also began to become interchangeable in spelling with the unstressed front vowel /e/, thus beginning to show the gradual development of /ə/ as the principal unstressed vowel. In EWS Oros already has a few cases of, for example, ⟨-en⟩ for pa.ind.pl. *-on* and ⟨-on⟩ for subj.pl., although these examples should be seen in the light of the gradual morphological loss of the subjunctive which proceeds *pari passu* with the phonological mergers. Other more clear-cut examples include ⟨-es⟩ for *-as* in 53.1 *bēames* 'beams', 90.25 *swicdōmes* 'treasonable practices', 44.12 *wealles* 'walls', ⟨-e⟩ for the gen.pl. *-a* in 54.7 *ǣrende* 'news', 97.11 *ġēare* 'years', 4.14 *sċipe* 'ships', and a few others, see Bately (1980: xlvi). At the end of the tenth century the lNbr texts LiGl, DurRitGl, and Ru2, together with the Merc Ru1, demonstrate merger of /a/ and /e/ in many inflexional endings, such as pr.ind.pl. *-eð* for *-að*, and indeed have the compromise spelling *-æð* in this and other inflexions. Otherwise the merger is not fully exemplified until the eleventh century, for example, Ch 1489.12 *hlēfdiġen* 'ladies' dat.pl.[1]

VII Unstressed medial vowels

6.63 Where unstressed medial vowels either remained or developed in the period of the written texts, then these vowels were subject to processes of reduction and loss similar to those which have been described in the preceding sections. Two major processes may be discerned: (a) the reduction of unstressed vowels to /ə/; (b) the loss either of vowels which earlier had secondary stress after a heavy syllable or of unstressed vowels which had remained after a light syllable.

(a) Reduction to /ə/

6.64 In forms with two unstressed back vowels there is already a strong tendency in EWS and Ps(A), continued in later texts, for the first of these vowels to reduce to /ə/, as is evidenced by the spelling ⟨e⟩. Thus we find forms such as: *fugelas* < *fugolas* 'birds', *heofenas* 'heavens',[1] *heoretas* 'deer', *roderas* 'heavens', *weredum* 'troops' dat.pl.; *adesa* (< *adosa*) 'adze', *eafera* 'son', *nafela* 'navel'; forms of weak class 2 verbs such as *gaderast, gaderode*, which may then be transferred to other forms, hence *gaderian* 'gather', similarly *staþelian* 'establish', *swutelian* 'make clear', etc.; the gen.pl. of *n*-stem nouns, such as *gumena*, but in Nbr and to a lesser extent Ru1 *-ana* remains frequent, note also CorpGl 687 *-doccana* 'muscles' gen.pl.; the inflected superlative of the type *-esta* (< *-osta*), such as *lēofesta*, although in this instance the best Ælfric mss. more often retain the earlier form *lēofosta*, otherwise less frequent in LWS. Similar retention of the back vowel in the superl. forms is also found in lNbr texts. Further examples of this vowel reduction can be seen in the second elements of reduced compounds, for example, *fultemian* 'help', cf. *gaderian* above, *fraceþu*, *fraceþum* infl. forms of *fracoþ* 'bad', *Badenoþ*, where the reduced vowel is part of the first element.[2]

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[1] Note also Beo 63 *-Sċilfingas* gen.sg., 519 *-Rǣmes* acc.pl.

[1] The type of suffix variation found in *heofon*, *heofenas* is sometimes ascribed to the realm of derivational morphology, where rival forms with different suffixes are postulated, thus Campbell (1959: §§381–4). This is true for early examples of the alternation, such as CædH 1 *hefaen-,* but later examples are more likely to be due to the process described above. On the other hand, interchange of the fem. abstract suffixes *-ing, -ung* is essentially morphological, see also §6.51n2 for *-nes, -nis*.

[2] But frequent Nbr *hlāferdas* 'lords' is not due to the above, but is from the nom.sg. *hlāferd* < **hlāfweard* with monophthongization to */æ/ after loss of stress, see §6.30, and then merger of unstressed /æ/ and /e/ by §6.48.

6.65 An extension of this vowel reduction occurs when the unstressed back vowel is followed by a foot bearing secondary stress. This gives forms such as: GDPref3(C) 258.24 *aredlicor* 'more quickly', CP 137.18 *fraceðlecum* 'shamefully', *rūmedliċe* 'liberally'. Such forms are, however, mostly rather infrequent.

(b) Loss of unstressed medial vowels

6.66 Medial unstressed vowels occurred under the following conditions during the period of written texts: firstly, in open syllables if the original vowel was high and the preceding syllable light; secondly, in all contexts where the medial syllable was closed; thirdly, if the original vowel had remained long under secondary stress but that stress and the associated vowel length were later lost. All three types of unstressed vowel are subject to loss and are discussed separately below.

6.67 If the medial vowel is between a consonant and a resonant, then loss of the medial vowel is frequent, giving rise to forms such as *ætgædre* 'together', *betra* 'better', *miċle* 'much', *yfle* 'evilly', *dysliċ* 'foolishly' (< *dysiġliċ*, cf. *mihteliċe*, §6.51), etc. and weak class 2 verbs of the type *medmian* 'measure', *opnian* 'open', derived from *medume, open*.[1] In most cases although these forms constitute a substantial minority of instances in EWS texts, they are almost completely avoided in Ælfrician texts, where *betera*, etc. is strongly preferred.[2]

[1] Note also BenR *Sætresdæġ* 'Saturday' < *Sæteresdæġ*.

[2] The same vowel loss occurs less commonly in a variety of other forms where the following consonant is not a resonant, although the preceding consonant often, but not always, is. The most frequent examples involve weak class 2 verbs of the types *efsian* 'shear', *orðian* 'breathe'. Other types include: *culfre* 'dove', *heolfor* 'gore', *seolfor* 'silver', *heolstor* 'darkness', *balca* 'balk', *ġeolca* 'yolk', *ċirċe* 'church', *pylċe* 'pelisse', *betsta* 'best', *fyrsta* 'first', *smælsta* 'smallest', *winstre* 'left', *eġsa* 'owner', *eġþe* 'harrow', *miġþa* 'urine', EpGl, ErfGl 430 *siġdi* 'scythe', *fremde* 'performed'.

6.68 The loss of medial vowel is further extended to forms which are disyllabic in uninflected positions. In such cases the resonant must precede the vowel which is lost, and hence we find: *cyln* 'kiln', *firn* 'crime', *myln* 'mill', *þyrl* 'hole', all with loss between two resonants, and *meolc* 'milk', *seolc* 'silk', *weolc* 'whelk', *clerc* 'clerk', *fald* 'fold', OccGl 28.75 *ard* 'quick', *orþ* 'breath', *warþ* 'shore', *heort* 'hart', *byrs* 'chisel', *mersċ* 'marsh'. These forms are usually less common than the disyllabic originals, but note that *hwelċ* 'which', *swelċ* 'such' always show loss of the vowel, presumably because of their non-lexical status and occurrence in weak stress positions.[1] The same is perhaps less plausibly true of *twelf* 'twelve'.[2]

[1] Perhaps occasional *þylċ* 'such' belongs here, rather than under §6.70.

[2] On the other hand the occurrence only of *dalc* 'clasp', *eln* 'ell' is probably accidental.

6.69 There are a few cases where an unstressed vowel is lost after a short syllable and before a consonant group. These are: *æfst* 'envy', quite common in EWS alongside *æfest,* also in some LWS texts,[1] LWS *bern* 'barn' (< *berern*), *cyng* 'king', increasingly common from the time of Ælfric, note also MtGl(Ru1) 2.3 *king*, LWS *ofst* 'haste' and its related verb *efstan, world* 'world', common after the time of Ælfric, also lNbr.

[1] But the word seems not to be used by Ælfric.

6.70 When medial vowels which had originally been long and in secondary-stressed syllables lost their length and stress, then they were potentially subject to loss by syncope after a heavy syllable. Such syncope is particularly associated with later texts, although some EWS examples are found, and this is no doubt due to the chronology of stress loss. The phenomenon is most frequent where the medial vowel is in an open syllable. Typical examples here include the vowel of the agentive suffix *-ere*, for example, Byrm1 14.21 *bōcra* 'scholar' gen.pl., 172.12 *sċēawre* 'observer', the suffix of comparative adjectives from adverbs, such as *æftra* < *æftera* < *æfterra* 'latter', and similarly others, such as *inra* 'inner', *ūtra* 'outer', the similar form *ōþre, ōþra* 'other' (already in EWS), and various other suffixal vowels, such as *dēoflić* 'devilish', Lev 3.1 † *hēafre* 'heifer' (in Bosworth and Toller, 1898: *hēahfore*). Occasional forms of *bismrian* 'revile', *fultmian* 'help' in both EWS and LWS also belong here, but may be usefully compared with the forms in §6.67n2.

6.71 The above syncope is occasionally extended to medial vowels in closed syllables, examples being *ǣmtiġ* 'empty', commoner than *ǣmettiġ*, and late *ġeǣrndian* 'send a message' and forms (rare), *fulht* 'baptism' and derived forms, such as *fulhtere, ġefulhtnian, hǣtse* 'witch' (< *hæġtesse*).[1,2,3]

[1] Note also Ch 856.5 *Hencstes* for *Henġestes*.

[2] There are a few forms which show more extensive reduction, often precursors of shifts in ME. Typically such examples show loss of both vowel and the preceding consonantal onset. The earliest such example is Ps(A) *nōht* ‘nought’ beside *nōwiht*, and later forms of the same word and its positive are *(n)āht, (n)āuht*, the latter simply with /wi/ > /u/, *nāteshwon* ‘not at all’ < **nāwihteshwōn*. Other examples are: *ǣlpi(ġ)* ‘single’ < *ǣnlīpiġ, heardra* ‘mullet’ < *heardhara, wǣpman* ‘man’ < *wǣpenman*.

[3] Similar to the late changes in n2 above are the loss of genitival *-es* in occasional LWS *Sæterndæġ* ‘Saturday’, or the loss of the vowel only in JnGl(WSCp) 5.30 † *Þursdæġ* (Bosworth and Toller, 1898: Þūr) ‘Thursday’, Ch 1494.1 *Ċēolsiġe*.

7

Old English consonants

7.1 After the operation of the various Germanic and Inguaeonic sound changes discussed in Chapter 4, the consonant system of the ancestor of Old English had developed as follows:

	Labial	*Dental*	*Palatal*	*Velar*
Voiceless stops	/p/	/t/	–	/k/
Voiced stops	/b/	/d/	–	–
Voiceless fricatives	/f/	/θ/	–	/x/
Voiced fricatives	–	–	–	/ɣ/
Sibilants	–	/s/	–	–
Nasals	/m/	/n/	–	–
Liquids, approximants	–	/l, r/	/j/	/w/

Of these phonemes all could occur as geminates except the approximants /j, w/.[1]

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[1] But geminate /ff/ was extremely rare, see §2.58.

7.2 Significant allophones of these phonemes are found especially for the voiced stops and the velar fricatives. The phoneme /b/ occurred as a stop consonant only initially, in gemination, and after nasals, occurring as a voiced fricative, presumably bilabial, medially and final when single. Conversely, the phoneme /ɣ/ occurred as a voiced fricative only initially, medially and finally, but occurred as a voiced velar stop in gemination and after nasals. For the phoneme /x/ we find not only the voiceless velar fricative, but also, in initial position, [h], the result of lenition in PrGmc, see §4.3. In WGmc, see §4.17, the fricative allophones of /d/ had already become stops, and therefore only the single allophone [d] can be reconstructed.[1] Amongst other allophonic variations which should be noted the most important

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concerns /n/ which assimilated in place of articulation to a following consonant and therefore had a velar allophone [ŋ], see also §7.3n2.[2]

[1] The reconstruction of proto-OE phonemes is difficult and controversial. For contrasting views and discussion see firstly Kuhn (1960) and Moulton (1954, 1972).

[2] It is also likely that /l/ had both ‘clear’ and ‘dark’ allophones, the latter occurring in the environment of a back vowel or consonant. Evidence for this suggestion comes from first fronting and breaking, see §§5.15, 16, and probably from the behaviour in Gmc of weak class 2 verbs without medial *-i-* in the preterite, such as *cwellan–cwealde* ‘kill’, see further Prokosch (1927), Hogg (1971).

7.3 Examples of the principal allophonic variations are as follows.[1] /b/ was realized as [b] in the following positions: **bindan* ‘bind’, **habbjan* ‘raise’, **lamb* ‘lamb’; and as [β] in **ȝiban* ‘give’, **ȝab* ‘he gave’. /ɣ/ was realized as [ɣ] in the following positions: **ȝiban*, **draȝan* ‘draw’, **droȝ* ‘he drew’; and as [g] in: **saȝȝjan* ‘say’, **sinȝan* ‘sing’. /x/ was realized as [h] in **xana* (=*hana*) ‘cock’, and in all other positions as [x]. /n/ was realized as [ŋ] in **sanȝ* ‘he sang’, and in all other positions as [n].[2]

[1] Minor details of reconstruction, such as inflectional endings, are ignored in the examples below.

[2] Presumably /n/ was realized as palatal [ɲ] when directly followed by /j/, for example, **kunnjæ* ‘race’ d.s. But all such cases would show gemination, making precise phonetic specification extremely difficult.

I Dissimilation

7.4 At a very early stage in proto-OE, final consonant clusters containing two continuant consonants dissimilated, with the first of the two consonants becoming the corresponding stop. The first of these consonants was usually a voiceless fricative (but see §§7.9 and n2, 11 for examples possibly involving voiced fricatives), whilst the second of these consonants was either /s/ or the resonants /l, m/. Since the cluster /θs/ was subject to assimilation rather than dissimilation, for example, **bliþs* > *bliss* ‘bliss’, dissimilation before /s/ was confined to the clusters /fs, ks/, for example, **wæfs* > *wæps* ‘wasp’, **foxs* > *foks* (= ⟨fox⟩) ‘fox’, see §2.51 for the regular use of ⟨x⟩ for /ks/. If the second of the two consonants was either /l/ or /m/, then the first consonant was /θ/, for example, **seþl* > *setl* ‘seat’, **boþm* > *botm* ‘bottom’.[1]

[1] There are a number of regular exceptions to this second change and also some dialectal variation. For both see §§7.10ff.

7.5 The phonetic features of the dissimilation or assimilation before /s/ are quite simple. Firstly, as can be seen from the examples above, any voiceless fricative is subject to change before /s/. Secondly, the only conditioning factor is the place of articulation of that fricative. If the fricative is dental, like /s/, then assimilation occurs, otherwise occlusion to the corresponding voiceless stop occurs. The change may therefore be characterized approximately as follows:

$$\begin{bmatrix} \text{C} \\ +\text{cont} \\ -\text{voic} \\ \langle +\text{cor} \rangle \end{bmatrix} > \begin{Bmatrix} [-\text{cont}] \\ \\ \langle +\text{strid} \rangle \end{Bmatrix} \; / \; \underline{\hspace{4em}} \begin{bmatrix} \text{C} \\ +\text{cont} \\ +\text{strid} \\ +\text{cor} \end{bmatrix}$$

7.6 Examples of the shift of */xs/ > /ks/ are particularly numerous, typical examples being: *oxa* 'ox' (**oxsa* > *oksa*), *līxan* 'shine', and, with breaking, *feax* 'hair', *meox* 'manure', *Seaxe* 'Saxons', *six*, *syx* 'six', *weaxan* 'grow'. Occasional *weahsan* and forms, found in CP(H), are not significant, cf. Or *ġeahsian* and forms for *ġeacsian* 'discover', indicating a merely orthographic variation.[1] LWS also shows a number of examples where /xs/ clusters due to vowel syncope are dissimilated to /ks/, such as *hēxta* 'highest', *nēxta* 'next', less commonly *sixt* 'thou seest' and similar forms. For further discussion of these see §7.9. The shift does not always take place when a further consonant follows /s/, and instead /x/ is lost, for example, **wæxstm* > *wæstm* 'fruit'. No doubt the reason for this is that the triple consonant cluster was regarded as over-heavy and therefore /x/, the weakest member of the cluster, was lost. But there is some variation, for example, regular *wrixlan* 'exchange', and ErfGl 1147 *dīxl*, 1043 *dīxlum*, CorpGl 205 *-þīxl*, 2007 *þīxlum* 'axle' against EpGl *dīslum*.[2]

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[1] Amongst other spelling variations we may note CP(C) 252.17 † *æxhe* (also ÆLet 2.167), which Cosijn (1888a: §131) aptly describes as due to 'schreiberpedanterie'.

[2] *Nēosian* 'visit' may perhaps be explained by early loss of /x/ between voiced segments, cf. however *līxan* where such loss does not occur.

7.7 In the earliest Merc glossaries there are still examples of /fs/, thus EpGl 526 *raefsed*, ErfGl *refset*, CorpGl 1084, 1087 *raefsit* 'reproved',[1] CorpGl 603, 859 *waefs*, 2098 *uuaefsas*, EpGl 1071 *waeffsas*, all texts showing ⟨ps⟩ spellings also. Elsewhere, however, ⟨ps⟩ spellings are regular. But /fs/ remains where it is the result of syncope, as in *drifst* 'thou drivest', which may be the result of analogy, see Campbell (1959: §418), or imply that the change was earlier than syncope, see further §7.9. Examples of the assimilation of */θs/ > /ss/ are *blī̆ss* 'bliss', *lī̆ss* 'gentle',[2] and, after syncope, *cwist* 'thou sayest' (< **cwiðst*).[3]

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[1] Note also EpGl 523 *raebsid* with ⟨b⟩ for [f] or, possibly, [p]. But by this time Gmc *[β] would have developed to *[f] before *[s], and there is no evidence to support the

view of Sturtevant (1931: 191–2) that *ps* developed from a voiced fricative whilst *fs* always remained.

[2] The vowel of *blī̆ss*, *lī̆ss* is of uncertain length, see Campbell (1959: §286).

[3] Alongside such forms are found the etymological spellings *blīðs*, *līðs*, presumably from the adverbs *blīðe*, *līðe*, and clearly analogical *cwiðst*, etc., from which is found Alc(Warn 35) *cwetst* (2×), this a twelfth-century ms. I can find no trace of the oft-quoted † *snītst* 'thou cuttest'.

7.8 The major morphological alternations involved in this sound change occur when an inflexion beginning with a consonant is added to the stem. In such cases one might expect loss of /x/ rather than dissimilation to /k/, cf. *wæstm*. The retention of /x/ and consequent dissimilation in forms such as WS *syxta*[1] 'sixth' and some forms cited in §7.6 may therefore be due to the influence of simple forms such as *six*, *syx*. But it should be noted that the development in such cases is generally irregular and some non-analogical explanation may be available.

[1] Ru1 has MtGl 27.45 *syxta*, 20.5 *sextan*, and Nbr regularly has *sextiġ* 'sixty', Li *sesta* 'sixth', probably implying that the situation there was not radically different from that in WS.

7.9 The changes discussed above are found in NGmc and also, for */xs/ > /ks/, in OFris.[1] This might imply a very early date for the change. However it is notable that in forms such as *feax* (§7.6) breaking occurs. Since breaking occurs before /x/ but not before /k/, see §5.16, this entails dissimilation being later than breaking. Furthermore, the ⟨fs⟩ spellings in the early Merc glossaries would suggest that the change had only recently occurred at the time of the completion of the archetype. The relative infrequency of the change when the consonant cluster is due to syncope, see §§7.6–7, is perhaps best accounted for by supposing that by that time the tendency to dissimilate had greatly weakened, and there may be no need to suggest that *drīfst*, etc. are due, solely at least, to analogical pressure. Assimilation of */θs/ may be assumed to have taken place at the same time, at least in *blī̆ss*, *lī̆ss*, and there is no necessity to suppose intervocalic voicing, as in Campbell (1959: §§481.2).[2] It seems most probable, therefore, that these changes took place between the period of breaking and that of syncope, perhaps at much the same time as *i*-umlaut. On the other hand forms such as *hēxta*, cited in §7.6 show that the change occasionally persisted to a much later date.

[1] For possible examples in other Gmc languages, see Luick (1914–40: §634A1 and references).

[2] There is also no necessity to assume, as implied by Campbell (1959: §481.2), that assimilation of */θs/ > /ss/ was later than devoicing of voiced fricatives before /s/. It is possible that the fricative was voiceless in Gmc, although the etymology of the suffix remains obscure.

7.10 Dissimilation before /l/ or /m/ is more restricted, dialectally less widespread, and less regular. The only fricative which is dissimilated is /θ/, see §7.4, although this may be due to the absence of final [fl, fm, xl, xm] clusters rather than some phonological restriction on the dissimilation.[1] In terms of dialect the change is restricted to WS, hence alongside the forms *setl*, *botm* cited in §7.4 we find Angl *seðel*, **boðm* (> ME *bothem*).[2] The regularity of the change is disrupted in two further ways. Firstly, there are examples such as *fæðm* 'embrace', *mæðl* 'talk' where the fricative always remains, except in the circumstances outlined immediately below. Since *fæðm* is mainly, and *mæðl* exclusively, poetic, these examples may be Merc borrowings and certainly seem indicative of interference from some other (sub-)dialect. The explanation of Campbell (1959: §419) seems to rest upon an implausible view of OE syllable structure. Secondly, there is a possible development by which, at least before /l/, the fricative is lost and the preceding vowel is lengthened in compensation. Clear examples of this occur before /l/ only in *mǣl* 'talk', *mǣlan* 'to talk', *stǣlan* 'impute'.[3] The phonological environment in which this sound change takes place, therefore, is somewhat obscure, and it is difficult to suggest a plausible yet simple characterization of the change. It should be noted especially that /l, m/ do not form by themselves a natural phonological class.

[1] If it is assumed that fricatives do not occlude before /n/, as implied by forms such as *hræfn* 'raven', then it must be supposed that *bytne* 'keel' and forms, cf. CorpGl 389 *bythne*, is merely a variant of *bytme* derived after rather than before the time of dissimilation, note however Nbr *hædna*, discussed in §7.14.

[2] For the competing Angl forms *seðel* 'seat' and *setel* 'episcopal seat', see Campbell (1959: §420n4). On the possibility of dissimilation in Angl *botl*, **bōtl* (> Bootle, etc.), see Ekwall (1917a) and, for criticism, Campbell (1959: §420n5).

[3] Possibly to be included here is *stǣl* 'place', if the form ever has a long vowel, cf. nom.pl. *stalu* with short vowel and Toller (1921: *stæl*).

7.11 Examples of dissimilation of /θl, θm/ > /tl, tm/ after a short vowel include: **boðl* > *botl* 'dwelling', *bytla* 'builder', *bytme* 'keel'. After a long vowel, however, the development is to /dl, dm/, and it may be supposed that in these cases there was an early voicing of the fricative between a long vowel and /l, m/, so that the change is /ðl, ðm/ > /dl, dm/.[1] Thus we find examples such as **āðl* > *ādl* 'disease', *nǣdl* 'needle', *mīdl* 'horse's bit', *wǣdla* 'beggar', *wīdl* 'impurity'. But there are forms without voicing, hence *spātl* 'spittle',[2] *wǣtla* 'bandage'.[3] As after the short vowel, there is normally no occlusion in Angl, where the regular development retains the fricative, for example, Ps(A) 102.3 *āðle*, MkGl(Li) *āðlo*. Similarly WS has several forms where occlusion does not occur, such as *ǣðm* 'breath', *mǣðm* 'treasure', paralleling the examples after short vowels cited in §7.10. Evidence for dissimilation before /r/, not otherwise found, comes from *ǣdr* 'vein', also found in Kt in OccGl 49.107, 330 *ēdra*.

[1] Alternatively one might suggest that the fricative remained unvoiced but not occluded until after the time of voicing between voiced segments. Then occlusion would have to have occurred after such voicing. But this poses equal chronological difficulties, see further §7.12.

[2] In Nbr we find JnGl(Li) 9.6 *spādle*, repeated in Merc JnGl(Ru1) 9.6, see §7.14.

[3] But this word could have a short vowel, see OED *wattle* sb.[1]

7.12 The most probable chronology of this process of dissimilation would be that it occurred at the same time as dissimilation before /s/, see §7.9. That dissimilation is normally to /t/ rather than /d/ presupposes that the change is earlier than intervocalic voicing of fricatives and hence also before syncope, see §7.58. For this reason the forms discussed in §7.11 are best explained by supposing that there was indeed special voicing after a long vowel which occurred earlier than normal intervocalic voicing.

7.13 As seen above, in Angl dialects the sequence /θl/ normally remains, but in WMerc there is a special later development by which /θl/ is metathesized to /lθ/ with, apparently, immediate occlusion to /ld/. Ps(A) has *seld* 'seat' frequently alongside *wēðla* 'pauper', 102.3 *āðle* 'illness'.[1] The existence of such unmetathesized and unoccluded forms demonstrates that the occlusion was dependent upon the metathesis and not vice versa. Metathesized forms are continued into the later ms. Hatton 116 (LS 3 Chad), where they exist alongside the normal LWS forms, for example, *seld* (4×), *setl* (3×). The use of such forms in poetry, thus Beo *bold* 'dwelling', *seld*, is no doubt Merc in origin, and there is no need to assume that the change was dialectally more widespread, see Vleeskruyer (1953: §41).[2]

[1] Note also CorpGl 814 *weardseld* 'guardhouse'.

[2] The place-name element *bold* also appears to be of Angl origin, see Smith (1956: 45).

7.14 In the absence of any of the changes discussed above, §§7.10–13, then the sequences /θl, θm/ are affected by a more wide-ranging shift in lOE by which the fricative [ð] (< [θ] by intervocalic voicing, see §7.54) develops to a stop before any liquid or nasal. Often such forms have not yet appeared by the time of Ælfriċ, but the following may be noted: ÆCHom I 29 420.21 *mādmas*, II 4 36.218 *mādmfatu* 'treasure', and, due to compounding, *ēadmod* 'humble' and forms (*c.*80× in ÆCHom against *ēaðmod c.*15×).[1] The same phenomenon occurs freely in lNbr, where alongside *āðlo*, see §7.11, we find in Li *ādl* 'illness', *bydle* 'cultivator', *nēdl* 'needle', *sedl* 'seat', see §7.10n2, *spādle*, see §7.11n2, *wīdliġa* 'defile', note MkGl(Li) 7.23 *wīðlað*. Nbr texts show evidence of this change where the consonant cluster is due to syncope, notably in Ru2 *ōēdle* 'earth' dat.sg. (4×) (< **ōēðile*) and frequent Li *hǣdna* and forms 'heathens', where occlusion is before /n/.

Occlusion of [ð] is also found in the Merc Ru1, for example, *ādle*, *nēdle*, *sedle*, *ēadmod*, but elsewhere in Merc the change is rarely found.[2]

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[1] Examples with occlusion before /l/ are difficult to find in WS. The best examples, perhaps, are ByrM 1 46.1 *þrȳdliċe* 'powerfully', Beo 2862 *þrȳdlicost* superl.

[2] Ps(A) 73.21 *ēadmod* may simply be due to the frequent substitution of ⟨d⟩ for ⟨ð⟩ in that ms.

II Palatalization and assibilation

7.15 In the ancestor of OE there existed only one palatal consonant, namely /j/, see §7.1. However, at a very early stage in the history of English the velar consonants */x, ɣ, k/ and their allophones became sensitive to an immediately adjacent front vowel or the approximant /j/, so that in the first instance the palatal allophones *[ç, j, c, ɟ] arose, where [ɟ] is the result of the palatalization of the *[g] allophone of */ɣ/.[1] This change affected geminate consonants equally, that is, *[xx, kk, gg] > *[çç, cc, ɟɟ].[2] In the case of the fricatives no further development took place, except that the voiced palatal fricative merged with the approximant /j/, if the two were ever distinct, see Hogg (1979b: 103–4). However, the palatal stops eventually developed into voiceless or voiced affricates, for example, *[c] > /ʧ/, > *[ɟ] > /ʤ/, similarly *[cc] > /tʧ/, *[ɟɟ] > /dʤ/. For full details of this latter change, usually called assibilation, see §§7.33ff. The change of palatalization, although widespread in OE, is poorly represented in texts, for ⟨h, c, g⟩ were used, by and large, indifferently for palatalized and unpalatalized forms. In mss. the only common method of distinguishing the two is the use of diacritics, especially ⟨e⟩ before a back vowel to show a preceding palatal, as in *sċeōp* 'poet', *sēċean* 'visit', but only in the case of ⟨e⟩ in unstressed syllables, mainly restricted to EWS, can we be certain that it is being used diacritically, see §§2.65, 80, 5.59–70.[3] Other evidence, however, comes from runic texts, where 'c' was often used for palatalized /k/, 'k' for unpalatalized /k/, 'g' for palatalized /ɣ/, 'ḡ' for unpalatalized /ɣ/, see §2.68n1. Evidence for the change also comes from its interaction with other changes, especially palatal diphthongization, see §§5.47ff., and from its development in later stages of the language, for example, PDE *church* and many other words with reflexes of the OE palatals.[4] Here the common practice of indicating palatalized /ɣ/ and /k/ by means of a superscript dot is employed, see §2.65 for full details. Typical examples of palatalization are as follows: (1) *[x] > [ç]: **hleaxxjan* > *hlihhan* 'laugh', WS **seoxið* > *sihð* 'he sees';[5] (2) *[ɣ] > [j]: **ɣellan* > *ġyllan* 'yell', **siɣi* > *siġe* 'victory', **dæɣ* > *dæġ* 'day'; (3) *[k] > [c]: **kīdan* > *ċīdan* 'chide', **sōkjan* > *sēċan* 'seek', **dīk* > *dīċ* 'ditch'; (4) *[g] > [ɟ]: **liggjan* > *liċġan* 'lie'.

[1] It is clear from later periods that *[x] is subject to palatalization, although in somewhat restricted contexts. See §§7.16n8, 26, and Campbell (1959: §442).

[2] There are, of course, no examples of palatalization of *[ɣɣ], since in this position /ɣɣ/ was realized as a geminate stop, see §7.2.

[3] Forms such as *seċean* are not only principally EWS, but even there predominate only in CP. However, the absence of ⟨e⟩ does not necessarily indicate the presence of a velar consonant. It is worth noting that in LWS the use of diacritic ⟨e⟩ is more often, but only occasionally, found in forms such as *ċyrċean* 'churches', where analogy from the nom.sg. *ċyrċe* would be likely. Diacritic ⟨e⟩ is equally uncommon in LWS to indicate a palatalized velar stop, as in *liċġan* 'lie'. For other spellings which indicate palatalization, see the examples in §§7.19–22.

[4] But the PDE situation can be misleading, both because of loan-words and/or Scandinavian influence, such as PDE *gate* ≮ *ġeat*, and because of analogical developments. There are also forms which have always had /j/, such as *ġēar* 'year'. A useful discussion of this point is to be found in Lass and Anderson (1975: 136–7).

[5] For the question of whether palatalization preceded loss of medial /x/ or /x/ was analogically restored in forms such as **seoxið*, see §7.26.

(a) Palatalization

7.16 In general outline the phonetics of palatalization are as follows. Initially a velar consonant was always palatalized before a front vowel,[1] for example, **kīdan* > *ċīdan, *ɣellan* > *ġyllan*, **kæster* > *ċæster* (> *ċeaster*) 'city'. Medially a velar consonant was always palatalized before /i/ or /j/, for example, **sōkjan* > *sēċan*, **siɣi* > *siġe*, but before /æ/[2] only velar fricatives were affected, so that we find **dæɣæs* > *dæġes* 'day' gen.sg., but *blæces* 'black' gen.sg.masc., *āces* 'oak' gen.sg. without palatalization.[3] Similarly velar fricatives were palatalized medially after any front vowel provided that a back vowel did not directly follow, for example, **reɣn* > *reġn* 'rain', **næɣl* > *næġl* 'nail', **fæɣr* > *fæġɣr* 'fair', but *stīgan* 'climb',[4] *wegas* 'ways', without palatalization. In the same positions the velar stops are palatalized only after /i/, and provided that a back vowel did not directly follow, for example, *dīċes* 'ditch' gen.sg., *miċel* 'much', but *dīcas* 'ditches', *ġelīcung* 'liking', because of the following back vowel, and *æcer* 'acre',[5] because the preceding vowel was not /i/.[6,7] Other examples of palatalized stops in medial position were normally due to analogical pressures, see §§7.41–2. Finally all velar consonants were palatalized after /i/, for example, **dīk* > *dīċ* 'ditch', **hwælik* > **hwæliċ* > *hwelċ* 'which' (similarly *swelċ* 'such', cf. also *ġelīċ* 'like'), **wīɣ* > *wīġ* 'war'. After nonhigh front vowels, however, only the velar fricatives are palatalized, for example, **dæɣ* > *dæġ* 'day', **mǣɣ* > *mǣġ* 'relative', but *frec* 'bold', *bæc* 'back' without palatalization.[8] This apparently confusing state of affairs can be clarified in two ways. Firstly, it is important to note that palatalization appears to have been partly dependent upon syllable structure, for the majority of the cases listed above can be subsumed under one condition: namely that a velar consonant was palatalized provided not only that it was adjacent to a front vowel or /j/, but also that it was in the same syllable as the palatalizing segment. This obviously accounts for all cases of the palatalization of an initial consonant. The situation with regard to palatalization of medial consonants is more complex, presumably because such consonants were regularly ambisyllabic in OE, see §2.81. Most cases, however, are accounted for by permitting any appropriate adjacent vowel to cause palatalization, provided that it is in the same syllable, where the palatalized consonant is ambisyllabic. The contrast in behaviour between forms such as **sōkjan* > *sēċan* and **dīkas* > *dīcas* must then be accounted for by assigning priority to the vowel of the second syllable rather than that of the first. The palatalization of final consonants is quite straightforwardly accounted for by the above analysis; nevertheless, some problems remain, and most of these can be resolved by noting that the velar stops are more resistant to palatalization than the velar fricatives. Initially, as has been stated, all velar consonants palatalized, but medially and finally velar stops only palatalized if the segment causing palatalization was either /i/ or /j/, for example, *æcer*, *bæc*, where the velar stop remained, see n3. We may therefore suggest that palatalization was a change by which all velar consonants were palatalized when adjacent to and in the same syllable as either /i/ or /j/ and that velar fricatives were also palatalized when adjacent to and in the same syllable as any front vowel, the same wider environment also causing initial velar stops to be palatalized. The change can therefore be characterized approximately as follows:[9]

$$\begin{bmatrix}\text{C}\\ \langle-\text{cont}\rangle_a\end{bmatrix} > [-\text{back}] \;/\; \left\{\begin{array}{l} \langle\#\rangle_b \;\underline{\qquad}\; \begin{bmatrix}-\text{cons}\\ -\text{back}\\ \langle+\text{high}\rangle_c\end{bmatrix} \\ \begin{bmatrix}\text{V}\\ -\text{back}\\ \langle+\text{high}\rangle\end{bmatrix} \;\underline{\qquad}\; \left\{\begin{array}{c}\#\\ [+\text{cons}]\\ [-\text{back}]\end{array}\right\} \end{array}\right\}$$

Condition: if *a* then either *b* or *c*.

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[1] Or before any diphthong whose first element was front, that is any normal OE diphthong, for example, **ɣæf* > *ġeaf* ‘he gave’, **kīusan* > *ċēosan* ‘choose’. Since the rule is that it is the element of the diphthong which is adjacent to the consonant which is crucial, and since the second element of any normal OE diphthong was back, palatalization only took place when the element which would cause the change was a following diphthong, and never took place when that element was a preceding diphthong, for example, unpalatalized *bēag* ‘he bent’.

[2] Instances of unstressed /e/ were rare, see §6.46 for discussion, but there is no reason to suppose that the behaviour before /e/ was any different from that before /æ/.

[3] This account was first fully developed by Morsbach in a footnote to Björkman (1900–2: 147–9), but many writers, such as Luick (1914–40: §637.2, 3), Campbell (1959: §§428–9, 435), have claimed that velar stops were palatalized under the same circumstances as velar fricatives. In order to explain later forms, such as ME, PDE

acre, *back*, etc., these writers must then claim that in such words the palatal consonant reverted to a velar at the time of assibilation. In favour of such a position are three arguments. Firstly, some words show unexpected assibilation in later periods, the best examples being ME *frech* 'eager', see OED *freck* a., Orrmulum *obacch* 'aback', neither of which is easily explained on other grounds. But other *ME* forms, such as *batch* 'batch loaf', *smatch* 'taste', *thatch*, *wlach* 'luke-warm', may be from verbs with palatalization, for example, **bæċċan* 'bake', cf. Nbr *wæċċa* 'wake' > PDE *watch*. See further the discussions in Ekwall (1921), Flasdieck (1923), Luick (1914–40: §685A1). Secondly, there are some occasional spellings, especially in Li, such as *bæcg* (3×), *bæcc* (2×), *gebræcg* and variants 'broken', which could be interpreted as indicating palatalized forms, see Bülbring (1902: §495A2), but ⟨cg⟩ appears to be merely a variant for ⟨cc⟩, occuring also in MtGl(Li) 23.4 *bæccum* dat.pl. where palatalization is unlikely. Thirdly, there is an argument that /k/ would be palatalized in an exactly parallel fashion to /ɣ/, first stated by Bülbring (1902: §495). But this argument is purely theoretical and can carry no great weight. Phonetically and phonologically the fricatives would have been more likely to palatalize than the stops, *pace* Luick (1914–40: §637A5), cf. also Lass and Anderson (1975: 143–4) for a different explanation of the same phenomenon, especially given the prior existence of /j/ in OE. Nevertheless it may well be worth entertaining the possibility that the situation was by no means as clear-cut as the presentation here suggests, and that there was rather more variation in the palatalization of stops than has been suggested, most especially in medial position, see Brunner (1965: §206) for a valuable discussion.

[4] Lass and Anderson (1975: 144) suggest that */ɣ/ was palatalized in forms such as *stīgan*, on the grounds of ME *stye*. But it is more probable that the ME form is due to analogical processes, see §§7.40–2.

[5] Here -*e*- is a parasitic vowel before word-final /r/, see §§6.38–40.

[6] *Ƿicce* 'thick', *mirce* 'murky' do not have palatalization because at that time /w/ still followed the velar stop and hence prevented the change, see Luick (1914–40: §637A4) and cf. *Myrċe* 'Mercians'.

[7] *Ċicen* 'chicken' appears to have velar [k] medially, given MtGl(Ru1) 23.37 *ċiken*, see §7.21. This is best explained by dissimilation, see Campbell (1959: §438n1), although it is doubtful if the same explanation can be applied to ME *caffinch* 'chaffinch', as suggested by Ritter (1910).

[8] By 'finally' in the previous sentence I intend syllable-finally, or preconsonantally after a vowel, rather than word-finally. Therefore there are many words which show palatalization of */ɣ/ in syllable-final position after a front vowel, such as *breġdan* 'brandish', *mæġden* 'maiden', *riġnan* 'rain', *sæġde* 'he said', or where only a consonant follows, such as *bræġd* 'twisted', *sæġd* 'said', and other similar past parts. Palatalization of /x/ (> [ç]) was especially frequent in such positions, for example, *cniht* 'boy', *riht* 'right'. In the case of the velar stop palatalization would take place syllable-finally only after /i/, hence *līċhoma* 'body', *rīċne* 'powerful' acc.sg.masc. But in this latter case it would appear that there was a strong tendency for palatalization to fail, or at some later stage for the palatal stop to revert to a velar stop, see §§7.25, 30. *Bīcnan* 'beckon' < **bēacnjan* is not a parallel example, since there the velar stop was never in contact with /i/ and so always remains.

[9] For the phonology of palatalization, see §§7.27–32.

7.17 Four further phonetic issues arise with respect to palatalization. These are: (1) the phonetic status of */ɣ/; (2) palatalization in clusters; (3) palatalization of geminates; (4) palatalization of */sk/. Each of these issues is discussed separately below.

(1) In §§7.15–16 it was assumed that forms such as *ġyllan* were due to palatalization of *[ɣ] and further that palatalization of *[g] resulted in [ɟ], see also §7.17(2), (3) below. This assumption is based on the claim that the allophones of /ɣ/ were orginally distributed as follows: a voiced velar fricative in all positions except in gemination and after nasals, where a voiced velar stop occurred, see §7.2. But some writers have assumed that by the time of palatalization */ɣ/ had already developed in initial position, at least, to a stop, thus Luick (1914–40: §633), Lass and Anderson (1975: 134). Since it is clear that in all positions except in gemination and after nasals the palatalization of /ɣ/ resulted in the fricative /j/, this would mean that a development of the type: *[ɣ] > *[g] > *[ɟ] > [j] would have to have occurred in words such *as ġyllan*, see Luick (1914–40: §696), but this seems implausible, see further Hogg (1979b: 93–6), and the development of */ɣ/ > [g] must therefore be placed later than palatalization.

(2) When a velar consonant occurred finally after /i/ or /j/ but preceded directly by a nasal, then palatalization still occurred. The only examples involve either *[k] or *[g], since /nx/ clusters did not occur, see §§3.13–15, and */ɣ/ was realized as *[g] after nasals, see above. Typical examples of this change, therefore, are *drinċ* 'drink' imp., *þinġ* 'thing', *hrinġ* 'ring'.[1] No doubt /n/ here acquired the palatal allophone [ɲ] from the preceding /i/ and this was then carried over to the velar stop.[2,3]

(3) The behaviour of velar consonants in gemination was identical to that when single and medial, although, of course, only *[xx, gg, kk] occurred, see §7.15. Typical examples are: **hleaxxjan* > *hlihhan* 'laugh', **liggjan* > *liċġan* 'lie', **strækkjan* > **stræċċjan* (> *streċċan*) 'stretch'. From the point of view of syllable structure the first element of a geminate presumably belonged to the first syllable, the second element to the second syllable. Therefore it has to be assumed that it is the second element which palatalized and that the first element assimilated to the second. Note that forms such as *sticca* 'stick' did not palatalize, since the second element of the geminate was adjacent to and in the same syllable as a back vowel. Although the first element was similarly placed with respect to /i/, assimilation here would appear to work only from right to left, see Lass and Anderson (1975: 146–7).

(4) Palatalization of *[sk] applied far beyond the usual limits, where typical examples are: **skip* > *sċip* 'ship', **skæl* > **sċæl* (> *sċeal*) 'he shall'; **dwǣskjan* > **dwǣsċjan* > *dwǣsċan* 'extinguish', similarly *wȳsċan* 'wish'; **disk* > *disċ* 'dish', **fisk* > *fisċ* 'fish'.[4] Beyond these limits palatalization can also be found initially before back vowels, for example, *sċeacan* 'shake', *sċeōh* 'shoe', medially in any environment except an immediately following back vowel, for example, *þersċe* 'I thresh', *disċes* 'dish' gen.sg., but *þerscan* 'thresh', *discas* 'dishes' without palatalization.[5]

Finally palatalization of *[sk] occurred after any front vowel, not only /i/, hence forms such as *æsċ* ‘ash’, but after back vowels the position is more obscure.[6] Especially noteworthy are instances of initial *[sk] followed directly by /r/ rather than a vowel, for these appear also to have been palatalized, for example, *sċrincan* ‘shrink’, see further §7.37. The phonetics of this behaviour are quite unclear. Perhaps the probable alveolar (or even prepalatal, see Bülbring, 1900a, and §2.62) quality of /s/ created a greater tendency towards palatalization, for it is difficult to see how otherwise the shift in forms such as *sċeacan, æsċ*, and perhaps even *disċ* could be explained, since */k/ would not be contiguous to a front vowel and therefore not in an environment leading to palatalization. The failure of palatalization in *þerscan*, *discas*, etc. is then best explained by ambisyllabification of /s/, so that /s/ and /k/ were no longer in such direct contact as to permit the change, see here n5. Furthermore, although it is clear that */sk/ eventually developed into /ʃ/ by assibilation, the intermediate stages of the development are obscure. Many opinions have been expressed, but none seems to have any outstanding merit, see further §7.37.

[1] Presumably the same explanation would apply to inflected forms of *finċ*, etc., for example, *finċes*, *hrinġes*, as to inflected forms of *dīċ*, etc., e.g. *dīċes*, see §7.16. Note here EpGl 410 *hringiae* dat.sg., where ⟨gi⟩ = *ġ*. Forms such as *englisċ* ‘English’ do not show palatalization of *[g], since neither the stop nor the nasal are in contact with /i/. For such forms see §7.17.4 and n4.

[2] The suggestion that the same happened if a liquid intervened relies on forms such as *byrġ* ‘cities’, *bilġ* ‘belly’, both of which had at the time of palatalization an immediately following /i/, and *felġ* ‘felloe’, which probably had a formation parallel to that of *bilġ*, is unnecessary.

[3] In RuthCr 44 ‘k̄yniŋc’ ‘king’ ‘ŋ’ must therefore indicate palatal [ɲ] rather than velar [ŋ].

[4] But these and similar words may be subsumed under the more general condition of palatalization of *[sk] after any front vowel, see below.

[5] Two exceptional forms are *bisċeop* ‘bishop’, *cūsċute* ‘cushat’. The most likely explanation is that the second syllable had secondary stress, thus Luick (1914–40: §691A2), and that this secondary stress prohibited ambisyllabification of /s/ so that the *[sk] sequence would behave as if it were word-initial. In support of the postulation of secondary stress may be mentioned the unusual LWS spelling *bisċeop* with diacritic ⟨e⟩ in an apparently unstressed syllable, a particular characteristic of ÆLS, although absent from ÆCHom, see also §2.68. It should also be noted that *cushat* (= ‘wood-pigeon’) is Northern, esp. Sc., and might therefore be expected to show /sk/, see §7.42.

[6] Thus, for example, whilst PDE *tusk* would imply unpalatalized OE *tusc*, frequent ME and dialectal PDE *tush* would imply palatalized *tusċ*. It seems probable, therefore, that although palatalization of *[sk] was less likely finally after back vowels, it did occur with some frequency.

7.18 Palatalization is one of the most widespread of the OE changes and occurs in a very large number of words of all classes. But, see §7.15, it is poorly represented in the OE spelling system. In §§7.19–22, therefore, only a few interesting spellings, mainly from early texts, are cited. Further examples can be found in §§7.33ff., and for an indication of the widespread character of the change see, for example, the lists in Luick (1914–40: §637) and Campbell (1959: §§427–9, 440).

7.19 In EWS the palatalization of the voiced velar fricative *[ɣ] was spelled with great regularity ⟨g⟩, for example, *ġeat* 'gate', and was not distinguished from Gmc */j/, for example, *ġēar* 'year', or the unpalatalized velar fricative[1] of *gāt* 'goat'. For discussion of the value of ⟨ge⟩ spellings see §§5.59–60.[2] The situation was similar in LWS. In all cases, however, initial /j/ in loan-words was normally transcribed by ⟨i⟩, for example, *Īudan, Īudas*, etc. 'Jews'. In the early Merc glossaries also the normal spelling for the sound was ⟨g⟩, but note ErfGl 263 *iāces*, CorpGl 380 *iēces* (= *ġēaces*, see n4 below) 'cuckoo', EpGl, ErfGl 958 *iesca* 'hiccough', cf. CorpGl 1865 *ġesca*, both words having initial /j/, and EpGl, ErfGl 947 *bōdæi* 'body',[3] EpGl, ErfGl 473, CorpGl 981 *grēi* 'grey', for final /j/. CorpGl 850 *grēiġ*, 2093 *seiġn* 'sign' show ⟨ig⟩, more probably an attempt to indicate the palatal consonant than to show a diphthong, see n3 and 2.39. The later Ru1 also has a number of forms with initial ⟨i⟩, such as MtGl(Ru1) 22.4, 8 *iara, iare* 'ready' and related forms,[4] 10.5 *iongaþ* 'journey', see n5. Nbr regularly used ⟨g⟩, but in early texts ⟨i⟩ was also used, for example, BDS 3 *hiniongae* 'departure',[5] but later ⟨ge, gi⟩ spellings may indicate palatal diphthongization, see §5.62. In lNbr spellings such as *ðeiġn* 'thane', cf. above, occasionally occur.[6] Kt texts show rather more frequent use of ⟨i⟩ than other texts, especially post-vocalically, for example, Ch1195.7, 1510. *dei* 'day' (5×), CollGl 49.274 *wæi*, 276 *wei* 'weighed', *wrēi* 'accuse' imp., and before another consonant 1203 *meiden* 'girl', 12 *swǣið* 'he sounds'.

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[1] For the shift of the initial unpalatalized velar fricative to a stop, see §7.68, also §7.17(1).

[2] The odd spelling CP(H) 57.9 *kelēd* 'led away' can be no more than a scribal error.

[3] Since *bōdæġ* later developed to *bōdiġ* through **bōdeġ*, a development only affecting unstressed /æ/ before /j/, see §6.52, this implies that ⟨æi⟩ did not represent a diphthong, see further §7.69.

[4] Alongside more frequent *ġearwe* and forms. It must be assumed that the substitution of ⟨i⟩ for ⟨g⟩ involved only orthographic loss of following ⟨e⟩ in order to avoid the unacceptable sequence ***ieare*, for if the following vowel were back palatalization would not have occurred. *Iara*, etc., therefore, are not examples of retraction rather than breaking, *pace* E. M. Brown (1891: §5b), see also §5.31. The same explanation holds for ErfGl *iāces*, see above, which is therefore not an example of stress shift in diphthongs, *pace* Pheifer (1974: §40).

[5] With /j/ from the pa.ind. *ġēong* 'he went'.

[6] Such forms are also infrequently found in LWS, for example, ÆCHom I 128.10 *ðeiġnas* 'thanes'.

7.20 The palatalization of the voiceless velar fricative *[x] was spelled identically to that of its unpalatalized partner, that is, ⟨h⟩, and there are no orthographic means of distinguishing the two.

7.21 When the voiceless velar stop was palatalized, then the normal spelling was ⟨c⟩, as for the unpalatalized stop. Hence are found both *ċēn* 'torch' and *cēne* 'keen'. Palatalized forms before back vowels were often distinguished, however, by diacritic ⟨e⟩, for example, *sēċean* 'seek', see §2.68 for other such spellings, also §7.15n3 and, for possible attempts to show assibilation, §7.34. Although the use of ⟨c⟩ is therefore consistently ambiguous, it is noteworthy that the alternative and rarer spelling ⟨k⟩ was, where used, generally restricted to representations of the velar stop. It may be, therefore, that spellings such as CP(H) 105.13 *ċēak* 'cheek' genuinely indicate a palatal stop (or, more probably by that time, an affricate, see §7.36) initially and a velar stop finally. Hence any other such occasional spellings, for example, CP(H) 411.18 *æker* 'field', also found in various charters, may confirm absence of palatalization in specific environments, here after a front vowel other than /i/, see §7.16. Other similar forms in EWS include: CP(H) 163.8 *ēakiað* 'they increase', 467.13 *murkien* 'they might grieve', both weak class 2 verbs, see §7.24, and 329.19 *ðicke* 'thick', see §7.16n5. In LWS texts of the Ælfrician period use of ⟨k⟩ was extremely rare, but it was most often used where the distinction between palatal and velar is crucial, for example, ÆLS 12.60 *kiċenan* 'kitchen' acc.sg. In the early Merc glossaries ⟨k⟩ was not used, and the only spelling of special interest is EpGl, ErfGl 792 *birċiae* 'birch' < **birkjæ*, see §7.17n2, with diacritic ⟨i⟩ before a front vowel. Ru1 has a particularly frequent use of ⟨k⟩ for the velar stop, note especially *bōkera* and forms 'writer' (19×) alongside *bōcera* (3×) and *bōc* 'book' (4×), see further Bülbring (1899). Amongst the Nbr texts Ru2 has a particularly high number of ⟨ch⟩ spellings, but they were used for both the palatalized, such as *stenċhes* 'stench' gen.sg., and the unpalatalized, such as *folches* 'people' gen.sg., sounds, see Bülbring (1898: 75), Lindelöf (1901: §134). Similar spellings occur occasionally in Li, notably *mech* 'me' (4×), but there too they seem to be without significance. In Kt ⟨c⟩ was the regular spelling. In gemination the normal spelling throughout was ⟨cc⟩, see §2.66, no distinction being made between palatalized and unpalatalized forms.

7.22 The voiced velar stop *[g] occurred only after nasals and in gemination, see §7.17(2), (3). When palatalized after a nasal the normal spelling remained ⟨g⟩, often with diacritical ⟨e⟩ before a back vowel, note also EpGl 410 *hringiae* with diacritical ⟨i⟩ before a front vowel, see §7.17n1. There are occasional ⟨cg⟩ spellings in both early and late texts, for example, *cyninċġ* 'king',[1] and note RuthCr 44 'k̄yniŋc'. The palatalized geminate was spelled ⟨cg, gg⟩, see §2.67.

[1] *Cyninċġ* is especially frequent in ÆLS, where it occurs almost as often as usual LWS *cyning*.

7.23 It is difficult to detect in OE texts any dialectal variation in palatalization, especially in view of the existence of spellings in such early N texts as RuthCr which unambiguously point to palatalized consonants.[1] There were, however, cases where the interaction of other dialectally variable sound changes resulted in dialectal contrasts with regard to palatalization. Most notable of these is the contrast between *ea*-dialects and *a*-dialects, see §5.15, where the former have palatalization in words such as WS *ġealla* 'gall', *ċeald* 'cold', the latter do not have palatalization, thus Angl *galla*, *cald*.

[1] Gevenich (1918) was the first to demonstrate that palatalization was a general OE change. Although her work can be subject to some criticism, see Ekwall (1919), but cf. Smith (1956: 86), and although there have been later attempts to show that there was dialectal variation, such as Watson (1947), these are generally unsuccessful, and her conclusions remain by and large sound. See further, however, §7.42.

7.24 Morphologically palatalization is one of the most important changes in OE, because it serves as a differentiating factor between several paradigmatic classes. Also, in conjunction with the later change of assibilation it was exceptionally prone to analogical levellings and extensions which have a lasting effect on the history of the language. Such analogical processes are discussed below under assibilation, see §7.40–2, and here only the class-differentiating features are discussed. Amongst nouns and adjectives palatalization serves to distinguish the following classes. Firstly, *ja-* and *jō*-stem nouns (and adjectives) show palatalization in disinction to their *a-* and *ō*-stem counterparts. Typical examples are: *lǣċe* 'physician', *ġefylċe* 'troop' against *lāc* 'war', *folc* 'folk'; *sprǣċ* 'speech' against *racu* 'narrative'. Secondly, original *i*-stem nouns show palatalization, as in *heġe* 'hedge', also occasionally in very late texts *heċġ*, a *jō*-stem, see Dahl (1938: 85), *stenċ* 'stench', against *sorg* 'sorrow', *rinc* 'man'. Amongst verbs palatalization was a primary characteristic of weak class 1 verbs, such as *bīġan* 'bend', *senġan* 'singe', *weċġan* 'move', *īċan* 'increase', *drenċan* 'drench', *streċċan* 'stretch'. In this they contrast with weak class 2 verbs which always lack palatalization, such as *swugian* 'be silent', *syngian* 'sin', *macian* 'make', *ascian* 'ask', *teohhian* 'consider'.[1] For allomorphic variation within paradigms see §§7.41–2.

[1] Naturally the weak presents of strong verbs also show palatalization, for example, forms of *liċġan* 'lie', *hlihhan* 'laugh', as do the weak class 3 verbs *hyċġan* 'think', *seċġan* 'say'.

7.25 In view of the fact that palatalization occurred in OFris as well as OE, see Steller (1928: §§40–4), it might seem reasonable to suppose that the Gmc velars had already acquired a tendency to assimilate to a neighbouring front vowel at a very early stage, thus Campbell (1959: §426). Yet forms such as *galan* 'sing', *calan* 'cool', cf. *ġealla*, *ċeald* (§7.23), which are due to restoration of *a*, see §§5.35–40, show that even if this tendency was very early, a palatalized consonant could revert to velar if the neighbouring front vowel became back. We must therefore suppose that palatalization was a sound change which occurred, or, perhaps – see, however, §§7.30–2 – was phonologized, not earlier than the time of restoration of *a*.[1] Palatalization did not take place before front vowels caused by *i*-umlaut, hence *gylt* 'guilt', *cyning* 'king', *gēs* 'geese', *cēne* 'keen', *gǣlan* 'hinder', *cǣġ* 'key', which only necessarily implies that palatalization preceded *i*-umlaut in those cases where the following vowel is /æ(ː)/, see §7.30. It is much more certain that palatalization must have preceded second fronting, for front vowels which are the result of that sound change did not cause palatalization, for example, **gætu* 'gates', **cæfurtūn* 'hall', see §5.91. Although the evidence of *i*-umlaut and second fronting apparently shows that velar consonants could no longer become palatal by the time of the full implementation of these changes, medially and finally palatalized consonants could still revert to a velar articulation at a later stage, more particularly after the time of syncope, thus we find examples such as *sēcð* 'he seeks', against *sēċe* 'I seek', but see for further discussion §7.30–2. At this point, however, it is safe to conclude that palatalization was a change later than restoration of *a* and earlier than second fronting.

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[1] If Angl *cald*, against WS *ċeald*, were due to retraction instead of breaking, rather than due to failure of first fronting before covered /l/, this would demonstrate that palatalization was later than breaking/retraction. But since that seems to be the less acceptable explanation, see §§5.10–13, the relative chronology of breaking and palatalization cannot be independently ascertained. Yet all the other evidence makes it unambiguously clear that palatalization was later than breaking.

7.26 In §7.51 it is argued that lenition of /x/ was a sound change roughly contemporaneous with smoothing, and that loss of medial [h] followed almost immediately. On these grounds, therefore, it must be assumed that those sound changes were later than palatalization. The consequence of this assumption is that medial /x/ must have been subject to palatalization in the same circumstances as its voiced counterpart, for example, in **fǣhið* 'he paints', see §7.46, but normally all such instances would then be lost. The only cases which would be phonologically retained are in gemination, as in *hlihhe* 'I laugh', or before a consonant, as in *cniht* 'boy'. For the former the normal LWS spelling of the root vowel is ⟨i⟩ rather than ⟨y⟩, confirming the following palatal consonant, see §5.167.[1] For the latter the position is more complex, since the evidence of palatal umlaut would suggest that the consonant was palatal only if a back vowel did not follow the consonant cluster, hence *cniht* but pl. *cneohtas*, see §5.113. In other cases, where /x/ was restored analogically, such as *sihð* 'he sees', the probable development was that medial /x/ would first be palatalized, then lenited and lost, and then analogically restored, once more as a palatal, see n1 below.

[1] ME spellings such as *lauhwen*, *lauȝwhen* very clearly indicate a velar fricative. But it is important to note that palatalization of /x/ produced [ç] which was merely an allophone of /x/, see §7.28. Unlike the results of palatalization elsewhere, therefore, the palatal consonant was always free to revert to a velar if its environment changed. Thus the ME forms above. Elsewhere, however, the ME developments were those proper to palatal fricatives, see Jordan (1974: §§196, 198).

(b) Phonological issues

7.27 The phonology of palatalization raises several complex issues, with respect both to the phonemic status of the relevant sounds and to the chronology of the changing phonology. By LWS, however, the results of the various developments are clear: (1) the voiceless velar fricative /x/, when palatalized, became and remained a palatal allophone of the velar fricative, that is, [ç] ⊃ /x/; (2) the voiced velar fricative /ɣ/, when palatalized, merged with the pre-existing phoneme /j/ < Gmc */j/; (3) the voiceless velar stop /k/, when palatalized, eventually underwent phonemic split, which created the new phoneme /*ʧ/, perhaps in the first instance /c/; (4) the voiced velar stop [g], an allophone of /ɣ/, when palatalized, eventually underwent phonemic split, which created the new phoneme /ʤ/, perhaps in the first instance /ɟ/. As can be seen, the phonology of the fricatives and of the stops is radically different, but the voiceless and voiced stops follow a parallel development. The details and consequences of these phonological developments are discussed in §§7.28–32; for the phonology of the palatalization of /sk/ see §7.37.

7.28 When the voiceless velar fricative /x/ was palatalized, then in the first instance, as with the velar stops, see §§7.30–1, the new palatal fricative [ç] would be merely an allophone of /x/, occurring only in those environments where palatalization took place, /x/ itself would only freely occur medially and finally, being already [h] initially, see §7.2, and [h] was, of course, not subject to palatalization. Shortly after palatalization /x/ was lenited and then lost when medial and single, so that it only remained medially when geminate and finally or when analogically restored. The distribution of [ç] and [x] remained complementary throughout the period and later, see §7.26 and n.

7.29 When the voiced velar fricative /ɣ/ was palatalized, the resulting sound appears to have been, or very quickly become, identical to Gmc */j/, so that, for example, no distinction existed between the initial consonants of *ġeat* ‘gate’ < **ɣæt* and *ġēar* ‘year’ < **jǣr*. It is difficult to assess the value of ME evidence which seems to show that /j/ from whatever source could revert to a velar when in the environment of a back vowel, hence spellings in Orrmulum such as *leȝhenn*, *wreȝhenn*, see Luick (1914–40: §373A5). The discussion in Jordan (1974: §190) would rather suggest a crucial role for analogy. Whatever the case, the evidence cited by Jordan clearly indicates that the voiced velar fricative had undergone phonemic split as a result of palatalization.

7.30 If, as argued in §7.26, palatalization occurred before and up to the time of *i*-umlaut, then in the first instance the palatal stop [c] would remain as an allophone of the original velar phoneme /k/, occurring initially before any front vowel, but medially or finally only when adjacent to /i, j/ but not adjacent to a back vowel, see §7.16. The velar allophone [k] would occur elsewhere, for example, *cū* ‘cow’, *climban* ‘climb’, *dīcas* ‘ditches’, *āc* ‘oak’. But with the operation of *i*-umlaut both [c] and [k] could come to stand before a front vowel. In the cases of the *i*-umlaut of */u(ː)/ and */o(ː)/, the new front vowels would be distinct from /i(ː)/ and /e(ː)/ until they were unrounded, the former vowel starting to become unrounded no earlier than the EWS period, see §§5.170–1, 175, the latter starting to become unrounded, in WS at least, before the time of the earliest texts, see §5.77. Thus examples such as *ċen* ‘torch’, **cōēne* ‘keen’ would not demonstrate contrastive distribution, that is, a phonemic split, until unrounding of **cōēne* > *cēne*. But in the case of *i*-umlaut of */(ɑː)/, the immediate result would be that the new front vowels would merge with the existing phonemes /æ(ː)/, thus creating the potential for a phonemic split between [c] and [k], for example, *ċēac* ‘cheek’ v. *cǣġ* ‘key’. Although full minimal pairs are hard to find,[1] this sub-part of *i*-umlaut would appear to be an important step in the creation of palatal stop phonemes, see Penzl (1947: 41–2), also Hogg (1979b: 100–2). In medial position there appear to be examples where, as noted in §§7.16n8, 7.26, when a palatal stop came to be followed immediately by a consonant, as a result of syncope, then the stop reverted to a velar. Thus we find **sōkið* > **sōēċið* > WS *sēcð* ‘he seeks’, where syncope has occurred, against Angl *sōēċeð* without syncope. This, unambiguously a phonological development, may best be explained by reference to syllable phonotactics and a reasonable assumption that clusters containing two coronal stops would not be permitted in OE. There would occur, therefore, a process of dissimilation and the palatal stop would revert to a velar. Thus such forms do not, as they at first appear to do, contradict the relative chronology discussed above.[2]

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[1] Perhaps the best pair is Nbr *cæfertun* ‘hall’ v. WS *ċeafer* ‘beetle’ (with palatal diphthongization). But the dialect differences, difficult as they are, are insignificant compared with many other problems in determining the status of the several variant forms of each of these words.

[2] For PDE forms such as *seek*, *think*, *work*, which also appear to contradict the above chronology, see the discussion in §7.42.

7.31 Similar facts hold for the palatalization of [g] as for the palatalization of [k], except, of course, for the more restricted distribution of [g], see §7.27. This has one important consequence, however, for it means that palatalized [ɟ] and velar [g] can only contrast medially when geminate and medially and finally after a nasal, there being, of course, no examples of either initially. In fact it would appear that there are no minimal pairs to demonstrate the contrast, and from the phonological point of view there may be no necessity to postulate a phonemic split, which may only be able to be justified, if at all, on grounds of phonetic distance. For various later forms with /g/, especially dialectal, which apparently contradict the relative chronology, such as *brig*, *eg*, *rig* for *bridge*, *edge*, *ridge*, cf. §7.30n2, see the discussion in §7.42.

7.32 The discussion in §7.25 makes it clear that it is most probable that palatalization of initial vowels was earlier than *i*-umlaut. However, the phonological features discussed in §§7.28–31, although they do not contradict this relative chronology, also make it most probable that palatalization was only phonemicized at a later stage, after the time of *i*-umlaut. The same is suggested by failure of *i*-umlaut in cases such as *dæġ*, discussed in §5.86. Since palatal diphthongization only occurred when an initial palatal consonant preceded a front vowel, see §5.48, the above proposal that palatalization occurred before the time of *i*-umlaut is consistent with the probability that palatal diphthongization also preceded *i*-umlaut. For the relative chronology of palatalization, smoothing, lenition, and syncope see §7.50–1.

(c) Assibilation

7.33 The evidence of §§7.28–31 clearly demonstrates that the phonological behaviour of the palatalized stops was quite different from that of the palatalized fricatives. Phonetically the same is true, for the evidence of later periods of the language shows that the palatal stops eventually became the palato-alveolar affricates /ʧ, ʤ/, for example, PDE *child* < *ċild*, *bridge* < *bryċġ*. Similarly palatalized [sc][1] became /ʃ/, for example, PDE *ship* < *sċip*. The change as it affected the palatal stops not immediately preceded by /s/ appears to have taken place irrespective of environment, occurring wherever a palatal stop was found as a consequence of palatalization.[2] Typical examples of the change are as follows:[3] (1) initially: *ċild* > *čild* 'child', *ċēn* > *čēn* 'torch', *ċeaster* > *čeaster* 'castle'; (2) medially: *ċiriċe* > *čirice* 'church', *miċel* > *mičel* 'much', *streċċan* > *streččan* 'stretch', *cyċġel* > *cyčǧel* 'cudgel', *senġan* > *senǧan* 'singe'; (3) finally: *dīċ* > *dīč* 'ditch', *finċ* > *finč* ‘finch’, *eċġ* > *ečǧ* ‘edge’. Particularly important, however, are examples where a stop other than a palatal (thus, a stop not the result of palatalization proper) developed into an affricate. This only happened when a dental stop was immediately followed by /j/, as in *fetian* (= /fetjan/) > *feččan* ‘fetch’, **midġern* > *mičǧern* ‘fat’, dial. *midgen*, see OED *midgern*. Such examples show that the sequences /tj, dj/, but not /ti, di/, cf. weak class 2 *hatian* ‘hate’, *bodian* ‘announce’, could coalesce to produce a palato-alveolar affricate. Since dental and palatal consonants form the class of coronal consonants, it may be inferred that the formation of affricates, generally known as assibilation, was due to the coalescence of a sequence of coronal stop + /j/. In order for this to be the case, however, it has to be assumed that the palatal stops developed a glide also, so that they had the form [cj, ɟj], or, preferably, [cʲ, ɟʲ]. This, however, is a quite common linguistic phenomenon, which stems from the difficulty of articulating palatal stops, see for example Ladefoged (1982: 148), and it is therefore reasonable to assume such a shift. The development of coronal stop + /j/ to an affricate is extremely common, and indeed repeated at later stages in the history of the language, see especially Wells (1982: 247–8), who calls the later change ‘Yod Coalescence’.

[1] As stated in §7.17(4), see further §7.37, the intermediate stages in the shift */sk/ > /ʃ/ are obscure and difficult. [sc], therefore, is intended as no more than a mnemonic to indicate the stage reached after the time of palatalization.

[2] Writers who claim that palatalization of */k/ was as general as palatalization of */ɣ/, see §7.16n3, must then suggest that assibilation failed to take place when the palatalized stop was not directly adjacent to /i/ or /j/ (except initially), hence *æcer* ‘acre’, etc. But such a restriction is unnecessary given the account of palatalization presented in §7.16.

[3] In these sections on assibilation, that is, §§7.33–9 only, affricates are distinguished from palatal stops by the use of superscript ‘ˇ’, that is, *č*, *ǧ*.

7.34 It was not usual for OE scribes to distinguish in any unambiguous way the above development of affricates, which were normally represented in exactly the same way as the palatal stops from which they developed. Amongst individual exceptions to this may be noted EpGl 657a *merze*, CorpGl 1304a *mertze* ‘trading dues’ < Lat *merx*, where ⟨z, tz⟩ could indicate an affricate, see §2.65n1.[1] It is also possible that some of the more complex variants of ⟨cg⟩ found in EWS, such as CP(H) 327.16 *ġebyǧčǧean* ‘buy’, see §2.67n1 and Cosijn (1888a: §135), were confused attempts to represent a complex phoneme. All the above cases are, however, of little significance.

[1] It is unlikely that EpGl, ErfGl 123 *r(a)edisnae* ‘bunches of grapes’ is an additional example, cf. Pheifer (1974: §71) for the opposite view.

7.35 Thus the most important examples are those demonstrating assibilation of dental stop + /j/. So LWS usually has *feččan* and forms ‘fetch’ beside mainly poet. *fetian*, and *fečč*(*e*)*an* is already found in Or (3×, never *fetian*).[1] LWS also regularly has *orčeard* ‘orchard’ against CP(H) 293.2 *ortġeard*.[2] In the case of the voiced dental, *mičǧern* ‘fat’ occurs in a few late glosses, whilst **midġern* is unattested.

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[1] Examples are lacking in CP.

[2] Also note CP(H) 381.12 *orcġeard*, described by Campbell (1959: §434n2) as ‘a copyist’s error of a common type (*c* for *t*)’. ÆGram † *cræfca* ‘workman’ must be doubtful alongside usual *cræfta*, surely not a scribal error, despite Campbell (1959: §434) following Sievers (1891: 328), for another view see Borowski (1924: 17–18).

7.36 The relative chronology of assibilation is highly controversial, a natural consequence of the fact that the change involved is almost solely phonetic in effect, with the single exception of the assibilation of [tj, dj]. However, spellings of the type *fečč*(*e*)*an* began to appear already in EWS texts[1] alongside mainly poet. *fetian* which may be taken to represent an earlier stage, and they were usual in LWS. This suggests that the affricate pronunciation started to predominate by at the latest the beginning of the ninth century, at least in the case where it developed from a dental stop + /j/. Doubtless the palatal stop + /j/ developed into an affricate at the same time. It is unlikely that much weight can be attached to the early spelling *mer*(*t*)*ze* cited in §7.35, and since assibilation must be later than palatalization it is in any case impossible to suggest a date for assibilation earlier than that of syncope, see §7.32.[2] If this is so, then it must be noted that assibilation in forms such as *sēčan* ‘seek’ is not due to the /j/ which originally caused palatalization, since that /j/ was lost by syncope. Rather one must assume a development approximately as follows: **sōkjan* > **sōċjan* (palatalization) > **sēċjan* (*i*-umlaut) > **sēčjan* (by §7.33) > **sēčan* (syncope) > *sēčan* (assibilation).

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[1] The earliest example is the ninth-century Mart 5.656 *ġefeččean*.

[2] The view expressed here is parallel to that of Bülbring (1902: §493), Luick (1914–40: §687), Campbell (1959: §486), Brunner (1965: §206A9). An alternative view, expressed summarily in J. Wright and Wright (1925: §309), much more extensively in van Langenhove (1930), but originating with Sweet (1888), not only must deny the validity of the *feččan* type as evidence, but also is rendered vacuous by the failure to take into account the fact that the shift was generally purely phonetic and without phonemic consequence. Of course a precise chronology can never be obtained, but general phonological principles would suggest an earlier rather than a later date for the development of affricates.

(d) Assibilation of [sc]

7.37 As stated in §7.17(4), palatalization of */sk/ far surpassed the normal limits of the change, occurring initially always, medially except when a back vowel directly followed, and finally after any front vowel. Typical examples in each position are given in §7.17(4), but one important type must be emphasized here. These are examples such as *sċrincan* ‘shrink’, *sċrēawa* ‘shrew’, *sċrūd* ‘shroud’, whose later development shows that */sk/ palatalized even before a consonant. This confirms the suggestion that /s/ could in itself have a palatalizing effect on */k/, and that it only failed to have such an effect when a syllable boundary intervened. These examples more particularly make it clear that the assibilation which eventually resulted in /ʃ/ is unlikely to have followed the same path as the assibilation of palatal stops not after /s/, for the postulation of a sequence **/scjr-/ is scarcely plausible. Perhaps it is most likely that a gradual assimilation of [s] and [c] took place, first in manner of articulation to give *[sç], then in place to give [ʃ].[1] It is necessary also to note that in the first instance the result of this shift was the geminate consonant [ʃʃ], which naturally always simplified in initial position and would also simplify finally in accordance with the general OE process of degemination, see §7.80. But medially a geminate remained, as quantitative shifts in ME show.[2] From the phonemic point of view, of course, [ʃ] and [ʃʃ] were merely allophones of /ʃ/, since they were in complementary distribution.

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[1] For other views see Luick (1914–: §691A1), and on the impossibility of a firm conclusion on the matter Brunner (1965: §206A10).

[2] Otherwise one must accept the view of Jordan (1974: §181) that /ʃ/ could be lengthened after a short vowel. This is difficult to accept, and the assimilation processes described above lead much more naturally to the existence of geminate [ʃʃ]. Flasdieck (1958) is an important review of the whole matter, with extensive references to further material.

7.38 Orthographically the only frequent indicator of the palatalization and then assibilation of */sk/ was the use of diacritic ⟨e⟩ before a back vowel, for example, *sčeolon* ‘they shall’, *sčeort* ‘short’, *sčeādan* ‘divide’. Such usage was most frequent in LWS, see §§5.65–70 for details and discussion of possible indications of palatal diphthongization of back vowels. In lNbr the gloss of the Prologue and Headings to Matthew has three ⟨s(c)h⟩ spellings: MtProl(Li) 8 *shȳa* ‘shadow’, 17 *bisčhēad* ‘distinction’, DurRitGl 3.21 *sčhyldo* ‘debts’. It is difficult to determine the significance of these spellings, which are scarcely of the same status as ⟨sh⟩ spellings in mss. of the twelfth century, where ⟨s, ss⟩ are also found, see Foley (1903: §41), Schlemilch (1914: 52).

7.39 No doubt the relative chronology of palatalization of */sk/ is approximately parallel to that of the other palatalizations. The dating of assibilation is, as elsewhere, rather more difficult, see §7.36. However, the failure of metathesis to occur in forms such as *asče* ‘ashes’, cf. *ascian*, *axian* ‘ask’, where unpalatalized /sk/ > /ks/, would imply that the palatalized cluster had, by the time of metathesis, become so closely joined together that metathesis could not take place. Since the union of the two segments was probably part of the assimilation process involved in assibilation, see §7.37, and since metathesis of /sk/ is a change best evidenced in LWS, see §7.96, this would imply that assibilation was well under way during the tenth century It seems likely, therefore, that assibilation of [sc] > /ʃ/ was a process which ran alongside assibilation elsewhere.

(e) Morphophonology

7.40 In §7.24 the consequences of palatalization as it served to distinguish various morphological classes were discussed. But palatalization and consequent assibilation also played an extremely important role in the rise of allomorphic variation. The most widespread type of allomorphy arose when a palatal consonant alternated with a velar consonant because of the presence of a directly following back vowel in various inflected forms. These are discussed in §7.41(1). Somewhat similar cases arose when syncope of an unstressed vowel caused an originally palatalized consonant to become velar, and these are discussed in §7.41(2). In §7.41(3) allomorphic variation involving initial consonants, a feature of certain strong verb classes, is discussed. The consequences of such allomorphic variation and processes of analogical levelling and extension are discussed in §7.42, together with a number of cases where dialectal variation appears to be the crucial factor, rather than analogy.

7.41 (1) Allomorphic variation between a palatalized and an unpalatalized consonant was particularly frequent in the following cases: *a*-stem masc. and neut. nouns; *ō*-stem fem. nouns; fem. and neut. weak nouns; athematic nouns; parallel forms of (strong) adjectives.[1] In both masc. and neut. *a*-stem nouns the final consonant of the nom.sg. was followed by zero or a front vowel in the sg., but by a back vowel in the pl. Typical examples of such nouns where a palatal or affricate might therefore be expected in the sg. but a velar in the pl. are: *dæġ* ~ *dagas* 'day', *dīċ* ~ *dīcas* 'ditch',[2] *līċ* ~ *līcum* dat.pl.[3] 'body'. The situation in fem. *ō*-stems differed principally only in that short-stemmed nouns had *-u* in the nom.sg., cf. *ġifu* 'gift', *lāru* 'learning', elsewhere a front vowel followed finally in the sg., a back vowel in the pl. A typical example of the variation in such nouns is *sorg* ~ *sorġe* acc.sg. 'sorrow', but of course nouns with the voiceless stop, such as *racu* 'tale', did not show the variation unless the root vowel was /iː/, as in *dīċ*, see n2, infrequent in these nouns. For fem. and neut. weak nouns the variation existed in the nom.sg. (neut. also acc.sg.) against elsewhere, so that we find *ēaġe* ~ *eagan* 'eye', note also *ċiriċe* ~ *ċirican* 'church', see §7.16. Amongst athematic nouns there is considerable variation with the gen.dat.sg. and nom.acc.pl. showing palatalization not present in the other forms, for example, *bōc* 'book', but gen.dat.sg., nom.acc.pl. *bēċ*, and similarly *burg* ~ *byrġ* 'city'.

(2) Where syncope occurred resulting in the sequence of palatal consonant + inflexional dental consonant, for example, **sēċð* 'he seeks', then, see §7.30, the palatal reverted to a velar, that is, *sēcð*. Consequently there were, especially in weak class 1, many verbs which would show a velar in all forms of the present except 2nd, 3rd sg.ind.[4] This alternation, of course, would be largely confined to WS, but the converse arose in non-WS dialects amongst strong verbs, where the 2nd, 3rd sg.pr.ind. was not subject to syncope, for example, Angl *drincan* 'drink', *drinċeð* 'he drinks'.

(3) Allomorphic variation in strong verbs occurred in initial position wherever the ablauting vowel varied between front and back, that is, in classes I, II, III, and certain class VII verbs. In class I a velar would be expected in pa.ind.sg., but a palatal or affricate elsewhere. Examples are rare, but note *ċīnan* ~ *cān* (etc.) 'gape'. In class II a palatal or affricate would also occur in the present, hence *ċēosan* ~ *ċēas* ~ *curon* ~ *coren*, 'choose', also *ċēowan* 'chew'. The situation in class III was more complex, but the present should always show a palatal, and the pa.ind.sg. a palatal except when a nasal followed, cf. *band* 'he bound', or in dialects where retraction rather than breaking took place. Usual WS examples are *ġyldan* ~ *ġeald* ~ *guldon* ~ *golden* 'pay', and similarly *ġyllan* 'yell', *ġylpan* 'boast', *ċeorfan* 'carve', but note Angl forms such as MtGl(Ru1) 17.24 *gald* 'he paid', see §7.25n1. Amongst class VII verbs variation exists in *gangan* ~ *ġēong* 'go'.

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[1] Adjectives are not cited below, since they follow exactly the same principles as in the corresponding paradigms of nouns. A further minor type may be found in *ġeatu* 'gates' from sg. *ġeat* (< **ġæt*). But the forms are ambiguous, see §5.50n1.

[2] *Dīċ* may also be fem., but it will still show the same pattern of variation, because of the preceding /iː/, see below.

[3] Since *līċ* is a long-stemmed neut., the nom.acc.pl. will be *līċ* with assibilation, final /u/ having been lost by syncope.

[4] Such variation would not extend to the preterite because verbs whose root originally ended in a velar consonant formed their preterite without the connecting vowel *-i-*, hence *sōhte* 'he sought', *þōhte* 'he thought'.

7.42 With the degree of allomorphic variation noted in §7.41, it would be expected that there should also be considerable analogical levelling and extension. Following general principles of analogy, see Kuryłowicz (1949), we would expect the nom.sg. to predominate over plural forms in nouns, and in strong verbs the present forms similarly to predominate over past forms. Thus we find examples in EWS and LWS such as *ċiriċean* 'churches', CP 273.8, 287.12 *eaġean* 'eyes', where ⟨e⟩ presumably indicates a palatal on the analogy of the singular. Amongst strong verbs there appear not to be clear-cut examples in OE, but the tendency is strong in later forms of the language, as in PDE *chosen* against OE *coren*. In the present tense of weak verbs the alternation type *sēċan* ~ *sēċð* is, as would be predicted, the source of later *seek*, cf. *beseech*, where the affricate has been extended, perhaps on pragmatic grounds, and so for other similar verbs, such as *think, work*. The failure of syncope in Angl forms such as *drinċeð* might equally be expected to lead to ***drinch*, but there is no evidence that any such forms appeared. The explanation may be that either the palatalization was levelled away in a similar fashion to the levelling of *i*-umlaut, see §5.85(6), or that Scandinavian influence replaced such forms with a velar. It is certainly probable that Scandinavian influence is the source of PDE dialect forms such as *birk*, *brig*, *rig*, *steek*, *weg*, for usual *birch*, *bridge*, *ridge*, *stitch*, *wedge*, see Campbell (1959: §438) against Luick (1914–40: §690; 1935). Presumably this is also the explanation of PDE *carve* against OE *ċeorfan*, and similarly later /sk/ forms such as PDE *skin*, cf. OE *sċinn*, may be due to the replacement of /ʃ/ by /sk/ in areas of Scand influence or by substitution of the native word by the Scand one, here ON *skinn*. In this way OE/ME /ʧ, ʤ, ʃ/ could be equated with Scand /k, g, sk/, and the later distribution of place-name forms, notably -*chester* v. -*caster*, is a helpful indicator of the limits of Scand influence. The existence of such influence, however, does not necessarily contradict the position of §7.23 and n that palatalization was in the first instance a general OE phenomenon.

(f) Conclusion

7.43 Finally it is doubtful that it will ever be possible to obtain a clear and sustainable picture of all the factors involved in OE palatalization and assibilation, because of the lack of orthographic evidence, the complex morphophonology, and later influences, especially Scand. The most difficult areas are undoubtedly the dialectal spread of palatalization and assibilation; the later reversions to velar articulations either by analogy or through Scandinavian influence; and the issues of chronological dating.

III Development of fricatives (i): lenition

7.44 As discussed in §§7.1–3, the ancestor of OE contained the following fricatives: *[f], *[β]; *[θ]; *[s]; *[x], *[ɣ]; *[h].[1] Only in the case of the velars was there a clear phonemic contrast between voiceless and voiced fricatives, for dental *[ð] had already developed to *[d] in WGmc, see §4.17, and labial *[β] was an allophone of */b/, see §7.2. But a complication arises with the labials, where relatively rare medial *[f] should have become voiced (> *[v]) by Verner's Law, hence **þurván* 'need'. Before the time of the Gmc accent shift such instances of *[v] would have been in complementary distribution with *[f], but after the Gmc accent shift they would have the pattern **þúrvan* and hence potentially contrast with forms such as **néfa* 'nephew'. Theoretically this could lead to the establishment of a new phoneme */v/.[2] But it is likely that these examples of *[v] would either have merged with *[β] or have been levelled out in favour of *[f]. The former is the more probable,[3] for the consequences see below, §§7.59–60.

[1] The effects of palatalization and assibilation are ignored here. For their relative chronology see §7.51

[2] Unless one allows morphological factors to influence phonemic distribution, in which case [v] could remain as a morphologically, but not phonologically, predictable allophone of /f/.

[3] Note that in Goth levelling does not always take place, thus *þarf* 'I need', *þaúrbum* 'we need', but see further Hogg (1979a).

*(a) Lenition of */x/*

7.45 At an early stage in the history of OE the above pattern is somewhat changed by the lenition of */x/ > [h] between voiced segments, a change which parallels the earlier Gmc lenition of */x/ > *[h] initially, for example, **xana* > *hana* 'cock'. The process of lenition is then carried further with complete loss of [h] between voiced segments.[1] Geminate /xx/ is never subject to lenition, hence *hlihhan* 'laugh', *hweohhol* 'wheel', *teohhian* 'consider', Nbr *æhher* 'ear of corn', and similar forms. Of necessity at least one of the voiced segments must always be a vowel, and although the other may be any voiced segment, the phonotactics of proto-OE normally restrict such segments to resonants, that is, /l, r, m, n/. For examples involving other voiced consonants see §7.47. The loss of [h] is normally accompanied by compensatory lengthening of an immediately preceding short vowel, for full details see §§5.124–30. When loss of [h] occurs between vowels then the vowels will naturally come to stand in hiatus, and consequently hiatus resolution occurs, see §§5.131–3, 149. Typical examples of the lenition are as follows:[2] (1) between vowels: **sexan* > **seoxan* (breaking, see below, §7.51 for discussion) > **seohan* > **sēo-an* (with compensatory lengthening) > *sēon* 'see' (with loss of the unstressed vowel in hiatus, see §5.145); (2) between a vowel and a resonant: **flēaxm* > *flēam* 'flight'; (3) between a resonant and a vowel: **swerxa* > **sweorxa* > **sweorha* > *sweora* 'neck' (> LWS *swura*, see §§5.127, 184).

[1] Lenition to [h] takes place everywhere between voiced segments but subsequent loss is restricted to positions after a stressed vowel. Thus *behindan* 'behind' and many other similar forms show *[x] > [h] but not subsequent loss. Such forms are best taken under Gmc lenition of **x* in initial position, with 'initial position' implying 'initially in a stress foot'. Lenition and loss in forms such as *bēot* 'boast' < **bi-hāt* must be due to primary stress shifting to the first element, see Girvan (1931: §252.1A1). Loss of [h] in forms such as *nabban* 'haven't' < **ni-habban* is a low stress phenomenon, see §5.153.

[2] The examples below are taken from WS. For different developments in the other dialects caused by hiatus resolution see §§5.131–49, and for the interaction with Angl smoothing see §7.51 and §§5.100(2), 102.

7.46 In the early Merc glossaries especially, /x/, presumably lenited to [h], is frequently still represented in the spelling by ⟨h⟩, also ⟨ch⟩.[1] Typical examples are as follows: (1) between vowels: EpGl *aehrian* 'chaff', cf. Nbr *æhher* 'ear of corn'; EpGl, ErfGl 785, CorpGl 1582 *fāē(t)hit* 'he paints', EpGl, ErfGl 799, CorpGl 1659 *nihol(d)* 'prone', EpGl, ErfGl 1080–1 *ryhae* 'blanket', EpGl, ErfGl 1199 *sċocha* 'enticement', LdGl 122 *sċōehere* 'shoemaker',[2] EpGl, ErfGl 654, LdGl 185 *sċyhend* 'pander', EpGl 1062 *swehoras* 'brothers-in-law', EpGl 3 *thohae* 'clay', EpGl, ErfGl 1066 *uulohum* 'fringes' dat.pl.;[3] (2) between a vowel and a resonant: EpGl, ErfGl 546 *bituic(h)n* 'between', ErfGl 326 *thuachl*, CorpGl 641 *ðwehl* 'washing';[4] (3) between a resonant and a vowel: EpGl, ErfGl 884 *furhum* 'furrows' dat.pl., EpGl 981 *sċeolheġi* 'cross-eyed'.[5] Such forms are, however, in a minority compared with cases showing loss of *h*, such as EpGl, ErfGl 797, CorpGl 1504 *fǣdun* 'they painted' and many examples cited under hiatus resolution in Chapter 5, see also Pheifer (1974: §88).[6] Outside these texts, and the further examples cited in n4 below, [h] is not normally represented in spellings, note however Ch8 *Uelhisċi*, except where analogy intervenes, see §7.49.

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[1] For the possibility that ⟨ch⟩ could represent geminate /xx/, see §2.60n1. Such an explanation may be relevant to the cases discussed in n3, n4 below.

[2] *Sċōehere* cannot be due to *i*-umlaut, and therefore must be either a misspelling for ⟨sceo⟩ showing palatal diphthongization of a back vowel, see §5.106n2 for other possible examples in Merc, or a confusion due to loss of [h]. But the spellings of LdGl are so unreliable that little weight can be attached to this form.

[3] Perhaps also to be included here is EpGl 171 *crocha*, ErfGl 171 *chroca*, CorpGl 461 *chroa, croha* 'crock', although there may be confusion between **croha* and the alternative form *crocca*, see Pheifer (1974: 70, n171). Not to be included, however, are Nbr forms such as *eher* 'ear of corn', which show graphic simplification of a geminate.

[4] In addition to the Merc forms there also exists JnGl(Li) 12.3 *ðuahles* and MtGl(Li) 9.16, MkGl(Li) I 2.16 *fihles* 'rag' gen.sg. In order to explain such a late appearance of *h* Campbell (1959: §242) suggests that gemination may have occurred in WGmc, that is, **þwaxl* > **þwaxxl.*

[5] Also in EpGl, ErfGl 854 *ebhatis (=ebhatum)* 'law-suit' dat.pl. after *[β] in a Gmc compound.

[6] EpGl 76 *ġihīodum* 'they went', ErfGl 276 *ġinēhord* 'content', 1064 *ġeholu* 'yellow' all show inverted spellings with non-etymological ⟨h⟩. The first example might be held to be a diacritic indicating hiatus, thus Pheifer (1974: §72n6), and note in any case that prefixal *ġi-* is unstressed, but the other two examples are clearly errors, since ⟨h⟩ occurs between two elements of a diphthong. Both, however, may be taken as indicating that medial [h] had by then been lost.

7.47 Examples of loss of /x/ between a vowel and a voiced consonant other than a resonant are, as stated in §7.45, restricted to cases of derivation. The compounds which result can be of pre-OE origin, as in *wēobud*, later *wēofod* 'altar' < **wīx-bēod*,[1] or later, such as *hēadēor* 'stag'.[2] Other examples include LVD † *Hēaburg*, † *Plēowald*. But in some cases the compound remains transparent and morphological juncture inhibits loss and presumably any lenition of /x/, thus *hēahburh* 'chief town', and many similar forms. The same, of course, occurs in compounds where the result gives /x/ between vowels, such as *hēahengel* 'archangel'.

[1] For the substitution of ⟨f⟩ for ⟨b⟩, see §7.55.

[2] Both *rādēor* and *rāhdēor* exist. The difference is presumably due to the effects of morphological juncture, see immediately below and Brunner (1965: §218A2), *pace* Campbell (1959: §461n3). Note also *līċoma* 'body' alongside *līċhoma*.

7.48 Initially [h] usually remained but throughout there are occasional examples of the failure of initial [h] to be represented in the spelling. It is not necessary to assume that initial [h] was regularly lost before sonorants, for most such examples are due to scribal error of one type or another. But loss or unhistorical use of ⟨h⟩ initially is particularly frequent in the poems of the Exeter Book, CP(H) and Li, for example, Rid 5.8 *ondweorc* for *hondweorc*[1,2] 'handiwork', Jul 171 † *yldo* for *hyldo* 'kindness', Christ 885 † *healle* for *ealle* 'all', CP(H) 67.7, 289.8 *æfð* for *hæfð* 'he has' and similarly for other forms of *habban*, see Cosijn (1888a: §137), Scragg (1970: 170–1), Li *unsefuntiġ* and forms (5×) for *hundseofontiġ* 'seventy', LkGl(Li) 1.36 *hældo* for *ældo* 'age'. For further examples and discussion of the implications of such forms see Scragg (1970). Where initial *h* was directly followed by *l*, *r*, *n*, or *w*, see §2.72, the situation seems to have been similar, although loss of *h* was, at least in Nbr, more frequent in this position, see Lindelöf (1890: §44), Lea (1894: §101), Füchsel (1901: §44), Foley (1903: §44). For a recent discussion see Toon (1976).

[1] MCOE has forms with ⟨h⟩ in the items indicated †, following editorial emendations, see Krapp and Dobbie (1936) for the examples in the Exeter Book.

[2] For *ondweorc* the ms. has *⁊weorc*.

7.49 Morphologically the most important feature of the loss of /x/ is that it leads to the development of the so-called contracted verbs, where single post-vocalic /x/ is lost in the present tense. Thus we find verbs such as *sēon* 'see', cf. *metan* 'measure'. Contracted verbs are found in strong classes I, II, V, VI, and VII and also weak classes 1 and 2, for example, *þȳn* 'press', *smēan* 'think'. The disruption in structure of these verbs which is caused by loss of /x/ leads to considerable variation and analogy in many parts of the paradigm. Few of these variations are directly relevant here, but one such feature occurs in WS, also Kt, in the 2nd, 3rd sg.pr.ind. of contracted strong verbs, such as *flēon* 'flee', *fōn* 'receive', *lēon* 'grant', *sēon* 'see', *slēan* 'strike', *þēon* 'thrive', where /x/ would be expected to lenite and then disappear, thus: **siuxist* > **siexist* > **sīe-ist* > **sīest* > LWS ***sīst*, similarly LWS ***sīð*. But the usual LWS forms are of the type *sihst*, *syhst* 'thou seeest'.[1] It seems most probable that /x/ has been analogically restored on the model of the pret.sg. *seah* 'he saw'.[2] Furthermore, in words where the simple form ends finally in /x/ which is not subject to lenition, notably *hēah* 'high', *nēah* 'near', then /x/ may be analogically restored in derived forms. This is the source of comp., superl. *hēahra*, *hēahsta*, *nēahra*, *nēhsta*, and similar forms. It is clear that it is the voiceless velar fricative which is restored, rather than [h], because of subsequent developments such as palatal monophthongization > *hēhsta*, etc. (see §§5.119–23) and /xs/ > /ks/, giving *sixst, hēxta*, *nēxta*, etc. (see §7.6). Neither of these changes would have occurred if [h] had been restored rather than the velar fricative. In Angl similarly smoothing occurs before analogically restored /x/ in words such as LRid 4 *hēhcræft* 'high skill', CorpGl 1960 *hāēhnisse*, PsGl(A) 11.9, 18.7 *hēhnisse* 'height', PsGl(A) forms of *ġenehlǣċan* 'approach' (3×).[3] Conversely, ⟨h⟩ may be added to words which never had /x/, such as *blēoh* 'colour', *frēoh* 'free' for *blēo*, *frēo*, on the analogy of words such as *fēoh*, gen.sg. *fēos* 'property', where the inflected form has loss of /x/.

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[1] Kt shows variation, for example, OccGl 49.491, 1091 *forsiohð*, 530, 542 *forsīoð* 'he despises'.

[2] For an alternative explanation of these strong verb forms, which must nevertheless still rely on morphological criteria, see below §7.51

[3] Perhaps also EpGl, ErfGl 881, CorpGl 1761 *thuerhfyri* 'cross-furrows'.

7.50 The evidence of the earliest texts would imply that loss of [h] took place in the late seventh century, at about the time of the composition of the common ancestor of EpGl, ErfGl, for although both texts show frequent retention of ⟨h⟩, these forms are in a minority and there is much variation and confusion, note the inverted spellings of §7.46n6 and see further Chadwick (1899: 246). Furthermore, there is no evidence of retention of *h* in the early Nbr texts, cf. CædH 8 *tīadæ* 'he created', which again would imply a date before the eighth century. Clearly loss of [h] is strictly contemporaneous with compensatory lengthening and must precede hiatus resolution, but this does not provide a more secure date for the present change, see §§5.130, 149.

7.51 Loss of [h] must, of course, necessarily post-date the lenition of /x/ > [h]. It is clearly the case that lenition could not have occurred before the time of breaking, since breaking occurs before /x/ in **sexan* > **seoxan* (> *sēon* 'see', cf. §7.45) and many other forms. It seems clear, see especially Luick (1914–40: §636A), that the change must have occurred before syncope, as shown by forms such as *tȳde* 'he instructed', *þȳde* 'he pressed' < **tūxidæ*, **þūxidæ*. If /x/ had been retained until after the time of syncope, then at that stage the forms would have been **tȳxde*, **þȳxde*, which would have then developed to ***tȳhte*, ***þȳhte* by assimilation, see §7.90. The recorded forms could only have developed normally if /x/ were lenited before syncope occurred. In the case of the 2nd, 3rd sg.pr.ind. of contracted strong verbs such as *sēon* 'see', etc., where /x/ remains, for example, *ġesihst*, *ġesihð*, if these forms are not to be explained analogically, see §7.49, then it must be supposed that exceptionally syncope occurred before lenition in these cases, see Luick (1914–40: §636A), Campbell (1959: §462). Perhaps more critical still for the relative chronology is the interaction of lenition of /x/ with Angl smoothing. As the discussion and forms cited in §§5.100(2), 102 indicate, smoothing normally took place before intervocalic /x/, for example, Angl *sīð* 'he sees' < **sixið* < **siuxið*, which indicates that lenition was the earlier of the changes. But if medial /x/ stood before a voiced consonant, then normally smoothing did not take place, for example, *hēanis* 'highness'.[1] This supposes the following chronology: (1) lenition of /x/ before a voiced consonant; (2) Angl smoothing; (3) lenition of intervocalic /x/. But if smoothing is of */iu, ıŭ/, then that takes place even before /x/ + voiced consonant, for example, Ps(A) *wī(ġ)bed* 'altar', see §5.200(2). The conclusion to be drawn is that smoothing and lenition of /x/ were almost contemporaneous, that each began to be implemented at the same time, although the full implementation of smoothing seems to be earlier than that of lenition. Since smoothing implies the pre-existence of palatalization, see §5.93, the relative chronology postulated here in §7.51 implies that lenition must also be later than palatalization. This is consistent with the fact that palatalization must, like lenition, have preceded syncope and that palatalization also preceded lenition, see further §§7.25–6. The most reasonable inference is that lenition belongs to the period shortly before the appearance of the earliest texts, and that loss of [h] almost immediately followed.

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[1] For analogical forms such as *hēhnisse*, see §7.49.

(b) Lenition of /k/

7.52 In addition to the lenition of /x/, there also occurs lenition of /k/ > /x/. The change is restricted to word-final positions in weakly stressed words, and is most commonly found in *ac* > *ah* 'but'. The change is most frequent in Nbr, where *ac* is rare, and where lenited pronominal forms are also found, such as *ih* (rarely), *meh, ðeh*, *ūsih*, *īowih*. Note also MtGl(Li) 19.3 *rehtlih* 'lawful' with lenition of the suffix *-līċ*. In other dialects examples seem to be confined to instances of *ah*. In Merc Ru1 and Ps(A) both always have *ah*. In EWS the only instances *of ah* are at CP 305.1 and Or 69.6. In LWS examples are rare in ÆCHom and non-existent in ÆLS, but slightly more frequent in WHom. In Nbr there are a number of cases with final ⟨g⟩ rather than ⟨h⟩, such as *ūsiġ*, *huliġ* 'of what sort', and MtGl(Li) 16.11 *sæġdiġ* 'said I'. Such spellings, and the consequent inverted spellings in, for example, *sextih* 'sixty', are considered further in §7.63.

7.53 Lenition of palatal and velar /k/ must have occurred before assibilation of *ċ*, since otherwise forms such as *iċ* could not have lenited. The regular presence of *ah* in Ps(A) would appear to confirm a dating before the middle of the ninth century. The rarity of expression in the change in both EWS and LWS need imply no more than scribal conservatism in those areas. Certainly later developments such as ME, PDE *I* and the development of the suffix *-ly*, both of which are likely to have their origins in this lenition, would suggest that the change was general and not confined to Nbr.

IV Development of fricatives (ii): voicing and devoicing

(a) Voicing

7.54 Following the loss of /x/ medially the system of fricatives in early OE was such that there was no longer any contrast in voice except finally, where /x/ and /ɣ/ still contrasted, for example, *seah* 'he saw' v. *beag* 'ring'.[1] This lack of contrast opens the way for a further change, by which the voiceless fricatives [f, θ] and the voiceless sibilant [s] are voiced to [v, ð, z] in voiced surroundings. The change does not affect geminate consonants (/ff, θθ, xx, ss/), nor does it affect [x] since that no longer existed medially between voiced segments.[2] In most OE texts the change is not represented in spelling, but in early texts the voicing of [f] > [v] is quite often represented. For further details see §7.55. Normally we find spellings such as *drīfan* 'drive', *wulfas* 'wolves' for [v], *cweðan* 'say', *fæðm* 'embrace' (see §7.10) for [ð],[3] *rīsan* 'rise', *bōsm* 'bosom' for [z]. Phonetically the change clearly involves the assimilation in voicing of a voiceless fricative to voiced segments when these occur immediately adjacent on both sides. But note that the change does not take place if the immediately preceding syllable is unstressed, hence *befaran* 'go round', *ġeþanc* 'mind', *asendan* 'send forth' show voiceless [f, θ, s] respectively.[4] Bearing this exception in mind, the change can be characterized approximately as follows:

$$\begin{bmatrix} \text{C} \\ \text{+cont} \end{bmatrix} > [\text{+voic}] \;/\; [\text{+voic}] \underline{\qquad\qquad} [\text{+voic}]$$

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[1] Phonetically, of course, there was both a voiceless labial fricative [f] and a voiced labial fricative [β]. But phonologically the latter was an allophone of /b/, the former an allophone of /f/, and therefore the systemic contrast is between a voiceless fricative and a voiced stop, see §§2.54, 58, 7.1–3, and 7.55.

[2] Also unaffected by voicing is the sound produced by palatalization and assibilation of */sk/. But since this sound eventually led to geminate [ʃʃ] and developed from bisegmental */sk/, see §7.37, the failure of this sound to voice follows from the failure of geminate consonants to voice.

[3] On the purely orthographic variation of ⟨þ⟩ and ⟨ð⟩ see §2.58.

[4] This may also be the explanation of failure of voicing in a number of suffixes, most especially the abstract suffix *-iðo* and the ordinal suffix *-oða*. Thus the following forms with the abstract suffix all have a voiceless fricative: *cȳðð* 'homeland', *mirhð* 'mirth', *strengð* 'strength', *trēowð* 'truth', *ofermetto* (< **ofermēdðo*) 'pride'. Examples of ordinal numbers are quite general, such as *seofoða* 'seventh', *eahtoða* 'eighth', and so on. This explanation, due to Luick (1914–40: §639.2), is not without difficulty, however, for some words show voicing in such contexts, notably *clǣnsian* 'cleanse' (against *bletsian* 'bless'), *adesa* 'adze' (but note the alternative EModE *addice* with voiceless [s]), *sīðe* 'scythe' < **siʒiþi*, cf. EpGl, ErfGl 430 *siġdi*, *Temese* 'Thames'. Since in the majority of cases the only evidence for lack of voicing comes from post-OE forms it might be better to assume that voicing took place normally in such words and that they were later subject to devoicing of final fricatives, see §§7.59ff. But this fails to explain *ofermetto*, and, probably, the etymologically difficult *bletsian*. On this general class of forms see further Bammesberger (1988: 122–5).

7.55 The voicing of [f] > [v] causes a major adjustment in the OE consonant system, for the result of the change is to create a labio-dental voiced fricative which is an allophone of /f/ alongside a bilabial voiced fricative [β] which is an allophone of /b/. In the very earliest texts, notably EpGl, ErfGl, scribes seem in part able to distinguish the two sounds, using ⟨f⟩ for [v] and ⟨b⟩ for [β]. Typical examples are: (1) for [v]: 150 *ċefr* 'beetle', EpGl 768 *fīfaldae* 'butterfly',[1] EpGl 459 *hofr* 'hump', 197, 223 *ġeroefa*(*n*) 'reeve', 183 *uulfes* 'wolf' gen.sg.; (2) for [β]: 3a *fibulae* (< Lat *fibula*, > *fifele*) 'handle', 115 *gaebuli* (also CorpGl 96 *geabuli*) 'tribute', 51 *halbae* 'halves', 30, 468 (also CorpGl) *sċēabas* 'sheaves'. But there is already a strong tendency to use ⟨f⟩ everywhere, as in 653 *clofae* 'clove', cf. CorpGl 1327 *clouae*, 837 *stefad* 'striped', cf. CorpGl 1571 ?*steba*, and many other forms. Substitution of ⟨b⟩ for ⟨f⟩ is much rarer and less certain, occurring only in 631 *glō*(*o*)*b* 'glove', where it is word-final, and EpGl 523 *raebsid* 'reproved', see §7.7 and n1. For less frequent examples in other texts, especially ninth-century Kt, see §2.54.[2]

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[1] ErfGl 768 *uīualdra* is doubtless an error on the part of the German scribe, see §2.58n2.

[2] For the morphological alternations created by this change see §7.57.

7.56 Towards the end of the OE period in S. dialects voiceless fricatives in initial position became voiced. This change, however, is only to be regularly detected in eleventh-century and later texts. The earliest example appears to be Rec 3 *uīf* 'five' of *c*.925–50, note also ClGll.1156 *uilmenum* 'film' dat.pl. of *c*.950. More frequent examples occur in the mid eleventh-century Gen(Ker) and Ps(K) of *c*.1100. For further details see especially Dietz (1990). Other recent work, concentrating mainly on ME evidence, includes Fisiak (1984), Poussa (1985), and Kristensson (1986b). The alternative view of Bennett (1955), that the change may even have been pre-invasion, lacks any firm supporting evidence.

7.57 Medial voicing of fricatives gave rise to a great number of alternations within OE paradigms, where a voiceless fricative in an uninflected form would alternate with a voiced fricative in an inflected form, for example, *stæf* ~ *stafas* 'staff, *wulf* ~ *wulfas* 'wolves'. Since such alternations are between allophones of a single phoneme, there would not be any analogical levelling or extension in OE. In later periods of the language, however, when voiceless and voiced fricatives became separate phonemes, allomorphic variation would be inherited from the OE forms, giving rise to PDE irregular formations such as *wolf* ~ *wolves*. In many cases this could permit the formation of doublets, such as *staff*, *stave*, and whilst the irregular plurals are often maintained, there are also many cases where the irregularity is eliminated, either by levelling, for example, *cliffs, baths* (cf. *bathe*), or by extension, for example, *glove*, *grave*. Levelling is especially extensive in Scots, probably beyond the limits described in Luick (1914–40: §653A1).[1]

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[1] Thus a voiceless fricative appears in all the words cited by Luick in SE Scottish dialects, such as Edinburgh *halfs, loafs, shelfs, elfs*.

7.58 Chronologically it must be the case that medial voicing of fricatives occurred after the lenition of *[x] > [h], for otherwise *[x] would have been voiced to [ɣ] and then remained, as in cases of medial Gmc *[ɣ], for example, *dragan* 'draw'. On the other hand, it is not possible to give a relative chronology of loss of [h] and voicing, the two changes being independent of one another. Voicing must, however, have occurred by the time of syncope, for otherwise forms such as **cȳþide* 'he made known' would have developed to ***cȳðte* (with [-θt]) or ***cȳtte* rather than *cȳdde*. The mixture of accuracy and confusion over ⟨f⟩ and ⟨b⟩ spellings in EpGl, ErfGl would suggest that by the time of their writing voicing and subsequent merger of the two fricatives had taken place, but perhaps the common ancestor from which they were working knew the voicing but not the merger. Voicing, therefore, would appear to have taken place almost immediately after the lenition of */x/.

(b) Final devoicing

7.59 As stated in §7.54, in early OE the only fricatives which contrasted in voice were /x/ and /ɣ/, but shortly afterwards a further contrast arose when [v] due to medial voicing and Gmc *[β] merged as [v], see §§7.55, 58. The result of this merger would be a phonemic contrast between /f/ < Gmc */f/ and newly created /v/. There thus existed voiceless and voiced fricative phonemes in both the labial and the velar series (but not the dental, where [ð] was merely an allophone of /θ/). However, the contrast could only exist finally, for /x/ had been lost medially due to lenition, and /f/ did not occur medially, having been voiced to /v/.[1]

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[1] The instances of /v/ finally are, of course, due not to medial voicing but rather to the merger of [v] and *[β]. /f/ remains finally and therefore contrasts with /v/ in that position because instances of *[β] are now members of /v/.

7.60 Then, as in the other Gmc languages, final consonants, but in OE especially final fricatives, became unvoiced, so that /v, ɣ/ > /f, x/, see §§7.64, 67 for discussion of the phonemics. In the case of the labial fricative the change might appear to be expressed orthographically, by the substitution of ⟨f⟩ for ⟨b⟩. Thus we find examples such as **healb* > *healf* 'half', **lēab* > *lēaf* 'leaf', **stæb* > *stæf* 'staff', **wīb* > *wīf* 'woman'. But it is more likely that such substitution merely reflects the merger of [v] and *[β] medially after voicing, see §7.55, and thus the ability of ⟨f⟩ to represent either a voiced or a voiceless labial fricative, see Luick (1914–40: §651.2). In the case of the voiced velar fricative, however, the change is normally expressed by the use of ⟨h⟩ rather than ⟨g⟩, for example, *bēag* > *bēah* 'ring', *burg* > *burh* 'city', *plōg* > *plōh* 'plough'. Such devoicing can affect not only fricatives occurring word-finally, but also fricatives which are final in a stressed syllable, for example, *fuhlas* 'birds' against *fug(o)l* 'bird', including cases where this is the result of compounding, such as *lahbryċe* 'breach of the law', cf. *lagu* 'law'. But this is a less frequent occurrence, see §§7.61–3 for examples and discussion, and there is no doubt that fricative devoicing is primarily a word-final phenomenon, which can be characterized as follows:

$$\begin{bmatrix} \text{C} \\ \text{+cont} \end{bmatrix} > [\text{+voice}] \;/\; \underline{\qquad\qquad} \;\#$$

7.61 Fricative devoicing is most extensive in WS, yet in EWS texts the change is only sporadically seen. Examples from EWS include: CP(C, H), Or (1× each) *burh* 'city', CP(H) (4×), CP(C) (8×), Or (3×) *ġenōh* 'enough', CP(H) 401.26 *lōh* 'he blamed', CP(C) 352.18 † *ofslōh* 'he slew', CP(H, C) (4×) *wāh* 'wall'.[1] Devoicing is also seen syllable-finally in CP(C) † *sahlas*,

-um ‘cudgels’, where CP(H) has *saglas*, *-um*, and in the compounds CP(C) 218.18 *burhware* ‘citizens’, CP(C) *ġefōhstānum* ‘fitted stone’ dat.pl. But these few examples are greatly outnumbered by forms with ⟨g⟩, such as *burg*, etc. In LWS, on the other hand, ⟨g⟩ spellings are virtually eliminated, and there are no examples of ⟨g⟩ spellings in the above words, nor in many similar words, such as *flēah* ‘he flew’,[2] *sorh* ‘sorrow’, in ÆCHom, ÆLS or WHom, ⟨g⟩ spellings being confined to late mss. not conforming to the norms of the *Schriftsprache*.

[1] Note also CP(H, C) 81.19 *bōgh* ‘arm’. For further similar examples and discussion see §§7.63n1, 64.

[2] ÆHom 20.254 *flēag* is from the later, but ‘extremely conservative’ (Pope, 1967–8: 177) ms.P, and may be reasonably considered a genuine exception to the above statement.

7.62 There is no sign of fricative devoicing in Kt charters up to 900, for example, Ch1195.6 *Ealhburg*, Ch1197.10, Ch1482.62 *-fuglas* ‘hens’. But in OccGl 49 devoicing appears to be entirely regular:[1] 975 *burh* ‘city’, 408 *forflīoh* ‘he escaped’, 1089 *ġenōh* ‘enough’, 365 *orsorh* ‘secure’, and, in a compound, 743, 849 *borhhond*, *-hande* ‘surety’. The situation is thus directly parallel to that in WS.

[1] The statement by Williams (1905: §99) that the unvoicing appears rarely in spelling is due to her conflation of the material for devoicing of fricatives with that for devoicing of stops; for the latter see §7.65.

7.63 The situation in Angl is quite different. In Merc the early glossaries have a few dubious examples of devoicing, thus: EpGl, ErfGl 588, CorpGl 1249 *mærh* ‘sausage’, but the word could be from either **marg* or **marh*, see Lidén (1907), Pheifer (1974: 588n), and EpGl 964 *tēac* ‘tie’ with ⟨c⟩ = /x/ or a scribal error for majuscule ⟨G⟩, see Pheifer (1974: §74n2). Similar examples are found syllable-finally in EpGl 84 *hraecli* ‘garment’ dat.sg., and in the compund EpGl 735 *brōcdaettendi* ‘trembling’. Also odd is the consistent inverted spelling in EpGl, ErfGl 61, 798, 924, 984, also CorpGl (-)*faag* ‘coloured’.[1] How far these spellings indicate fricative devoicing in the dialect of these mss. remains doubtful. In Ps(A) ⟨g⟩ is always retained, for example, *ofslōg* ‘he slew’. In Ru1 devoicing is seen in *ġenōh* ‘enough’ (2×, no examples of *ġenōg*), and also at MtGl(Ru1) 10.11 *burh* ‘city’ against 22.7 *burg*. There are also a few inverted spellings, such as 24.10 *betwīg* (2×) ‘between’, 3.16 *ġesæg* ‘he saw’. Amongst Nbr texts only Li shows any clear signs of devoicing with *ġenōh* (3×) against *ġenōg* (1×), other examples in that text being very rare. On the other hand, Nbr texts show a slight tendency to replace ⟨h⟩ with ⟨gh⟩, thus MtGl (Li) 2.16, JnGl(Li) 7.52 *ġesægh* ‘he saw’, DurRitGlComm 2.6 *hēgh-* ‘high’, and compare the spellings cited in §7.52. It would therefore appear that during the OE period fricative devoicing was a characteristic primarily expressed in S texts, and that orthographically it had scarcely intruded upon the Angl dialect area. But in ME the change was widespread, see Jordan (1974: §187), although he implies that this was an OE phenomenon. The ⟨gh⟩ type spellings in Nbr may be a reflection of this.

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[1] Note also the compound EpGl 957, CorpGl 1380 *slāghthorn*, *slāgðorn* 'blackthorn', alongside EpGl, ErfGl 672 *slāchthorn*, perhaps no more than a scribal error.

7.64 In order to consider the morphophonemics of fricative devoicing, it is essential to consider the phonemic contrasts between fricatives. For the reasons discussed in §7.67 it is likely that this sound change was the final link in a chain of changes which caused reorganization of the OE fricative system, so that [x] and [ɣ] became merely allophones of one another, similarly [f] and [v] became allophones of /f/. Consequently any variation within paradigms would be between allophones of a single phoneme, and interchange of ⟨g⟩ and ⟨h⟩ would be due to the availability of two graphs to represent a single phoneme. The interchange is especially notable in Bo where forms such as *dahum* occur for *dagum* 'day' dat.pl.

7.65 Unlike the other WGmc languages, devoicing of final stops is only sporadically evident in OE. Occasional examples in stressed syllables include: LRid 6 *ðrēt* 'thread', EpGl 439 *dēatlicostan* 'deadliest', CorpGl 799 *sċulthēta* 'bailiff' (< *sċyld-*), OccGl 49.214 *lamp* 'lamb', 256, 396, 1132 *ðinċ* 'thing', and hence 446 *ðinċe* dat.sg., also RuthCr 44 'k̄yniŋc' 'king', see Ball (1988: 114–15). In unstressed syllables the change is rather more frequent, and *sint* 'they are' is very frequent in EWS, Nbr, Ru1, and Kt OccGl 49, beside LWS *sind*(*on*). Li also has *-et*, *-at* in wk.pa.parts., such as *ġeset*(*t*)*et* 'sat', examples being virtually confined to post-dental position, and even then in a minority of forms.[1] Other examples are mainly sporadic and isolated, but note CP(H) (2×), Or (3×) *færelt* 'way' against *færeld* elsewhere, hence by extension *færelte* dat.sg. and other forms, frequent in CP and Or.[2]

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[1] The position in Li correlates with later N developments, especially Sc *-it* for all pa.parts., such as *worrit* 'worried'.

[2] It is notable that devoicing of final stops is more prevalent in EWS than in LWS, but the discrepancy is unexplained, see §7.66.

7.66 Chronologically the most helpful indicator of the date of fricative devoicing is its appearance in texts. The evidence given above would suggest that the change started in the S., and only eventually spread to Angl, perhaps after the end of the period, despite Jordan (1974: §187). Since spellings showing devoicing are infrequent in EWS and absent in Kt before 900, the change would appear to be early tenth century, given the consistency with which the change is shown in mss. of the Ælfrician period and later. As suggested in §7.63 the evidence from early Merc texts cannot be taken as good support for an early implementation of the change further north. It is far more difficult to date the sporadic devoicing of final stops, which would appear to have occurred very early. The discrepancy noted in §7.65n2 may be due to the appearance of the change only in some dialects and its elimination from the *Schriftsprache* through a choice between competing dialects. This, however, is pure guesswork. The change seen in Li weak verbs is an exception to the above, since it appears to be the first sign there of an eventually regular shift.

(c) Phonemic consequences

7.67 After the processes of lenition, medial voicing, and final devoicing, it should be clear that the following situation had arisen with respect to fricatives (excluding /ʃ/, the product of assibilation of */sk/, see §§7.37–9). Amongst labials [f] occurs initially, for example, *faran* 'go', *fēoh* 'money', in gemination, whether inherited, for example, *Offa*, or through borrowing, for example, *offrian* 'offer', or through word-formation, for example, *offaran* 'overtake', and finally, whether from *[f], for example, *þearf* 'he needs', or from *[β], for example, *hlāf* 'loaf'. [v] occurs only medially after a stressed vowel, for example, *hlāfas* 'loaves'. Thus [f] and [v], being in complementary distribution, would be allophones of the same phoneme /f/. The situation for dentals is parallel. [θ] occurs initially, for example, *þynċan* 'think', in gemination, for example, *sċeþþan* 'injure', and finally, for example, *pæð* 'path', and [ð] occurs only medially after a stressed vowel, for example, *wrīðan* 'twist'. Therefore [θ] and [ð] are allophones of the same phoneme /θ/. For velars, however, the situation apparently remains complex. [x][1] appears medially in gemination, for example, *hlihhan* 'laugh', and finally, for example, *burh* 'city'. Initially [h] appears, for example, *hand* 'hand'. The voiced velar fricative is also found initially, for example, *gān* 'go', as well as medially, for example, *dagas* 'days'. Thus it would appear that [x] and [h] are allophones of the voiceless phoneme /x/, whilst [ɣ] is an allophone of the voiced fricative /g/, which appears as [g] medially in gemination, for example, *docga* 'dog', and after nasals, for example, *singan* 'sing', *sang* 'song'.

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[1] I ignore here the palatal allophone [ç], as in, for example, *cniht* 'boy'.

7.68 The phonemic analysis of the velar consonants in §7.67 is clearly somewhat exceptional. Firstly, only there does a contrast between voiceless and voiced fricatives appear to remain. Secondly, only there is there no voiced phonemic stop. Thirdly, medial [ɣ], apparently an allophone of /g/, is distributionally parallel to medial [v] and [ð]. It would therefore seem reasonable to suggest that phonemic reanalysis took place such that initial [ɣ] became an allophone of an otherwise defective phoneme /g/, whilst medial [ɣ] became an allophone of /x/. Such phonemic reanalysis can only be well motivated after the processes described in the preceding sections have eliminated any other putative contrasts between voiced and voiceless fricatives. It may be, furthermore, that this reanalysis leads to the phonetic change by which initial [ɣ] becomes a stop, for it would now be phonologically isolated. It is well known that by ME this change had taken place, and although the change is usually placed in late OE (so Bülbring, 1902: §487, followed by Jordan, 1974: §184; Campbell, 1959: §50.4), such dating appears haphazard, see Girvan (1931: §214). However, if the phonetic change is thus influenced by the phonemic analysis, then a dating in the late OE period, say *c*.1000, would appear to be confirmed.[1]

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[1] An alternative suggestion, first made by Sievers (1925) on the grounds of his *Schallanalyse*, is that the occlusion of *[ɣ] was prehistoric. This suggestion, accepted in Luick (1914–40: §633) and Brunner (1965: §211), can scarcely be correct, for it implies that somehow *[g] < *[ɣ], when palatalized, would revert to a fricative. Many modern scholars, such as Moulton (1954: 24–5), Wagner (1969: 163), Kuhn (1970: 27–8), and Lass and Anderson (1975: 134), agree that the voiced velar was a stop throughout the OE period, but their arguments too seem unconvincing. For a fuller discussion see Hogg (1979b: 92–6).

V Post-vocalic approximants

7.69 It is usually claimed that when in OE a vowel was followed by one of the approximants /j/ (whether < Gmc */j/ or by palatalization of */ɣ/), /w/, then the approximant vocalized and usually formed a diphthong with the preceding vowel, for example, *dæġ* [dæj] > *dæġ* [dæi] 'day', *snāw* [snɑːw] > *snāw* [snɑːu] 'snow', see Luick (1914–40: §257), Campbell (1959: §§266, 272), Brunner (1965: §126). Such a change is apparently confirmed by spellings such as Kt *dei*, see §2.39, or EpGl 610 *mēu*, see §2.40. But, as Colman (1983b) argues, in the case of vowel + /j/ or back vowel + /w/ it is unlikely that new diphthongs **/ei, ĕı; æi, æ̆i; ɑu, ɑ̆u/ etc. could so arise. Yet it remains possible, *pace* Colman, that the sequence of a front vowel + /w/ could give create diphthongs which would equate with the already existing /iu, ıŭ; eu, eŭ; æu, æ̆u/ or their subsequent developments, see §§5.41–6.[1] Therefore it should be assumed that spellings such as *dei*, *mēu* cited above are merely orthographic variants of *deġ*, *mēw*, etc.[2] This is most obviously the case in those texts where ⟨u⟩ is an orthographic variant of ⟨w⟩, see §§2.40, 77.

[1] Colman's arguments are essentially theoretical, based on likely syllable phonotactics and the assumption that vocalization and diphthongization could only take place if the result was merger with an already existing diphthong. But it should also be noted that in cases where vowel +/j, w/ should produce a new diphthong, then normally the vowel continues to behave as if it were a monophthong, rather than the first element of a diphthong. The clearest example is of the type *snāw*, which gives ME *snow* by rounding of /ɑː/ > /ɔː/, see Luick (1914–40: §369), Jordan (1974: §105). Possibly also relevant is the presence of second fronting in forms such as Ps(A) *deġ*, see §§5.87ff. When in ME diphthongs of the type /ei, ai/ do emerge, then their subsequent behaviour is different from that of monophthongs, as in the ME merger of *dai* and *wei* (> *day, way*).

[2] Such variation could give rise to the equation of ⟨e⟩ and ⟨ei⟩, which might be the source of spellings such as BDS 1 *nēid-* 'necessary', see further §2.18.

7.70 It follows from the above that the only instances of so-called vocalization of /j/ are where the preceding vowel is /i(ː)/, when the development would be merely: */i(ː)j/ > /iː/. Common examples of the change are: *brīdel*(*s*) 'bridle', cf. ErfGl 127 *briġdils*, *frīnan* 'ask', *hlīsa* 'fame' (no examples of **hliġsa*), *īl* 'hedgehog', *rīnan* 'rain', *sīðe* 'scythe', cf. EpGl, ErfGl 430 *siġdi, tīðian* 'grant'. The above examples are common to EWS and LWS, but in other dialects occurrences are infrequent. But Kt has OccGl 49.982 *brīdel, hlīsa* and forms (3×), 555 *wīlung* 'sorcery'; and in Merc Ps(A) has *rīneð* 'it rains' (2×), 77.27 *rīnde* 'it rained', whilst EpGl 127, CorpGl 261 show *brīdels*, and CorpGl has *iil* (2×), 1241 *sīras* 'gluttons', 834 *sīð*, cf. above.[1,2]

[1] When the above change occurs in unstressed syllables, then /iː/ is naturally shortened to /i/. This is especially frequent in LWS and Kt, although not always expressed, thus *hefiġ* is more frequent than *hefie* 'heavy', etc. Note EWS CP 267.1 *dysi* 'foolish', Or 49.23 *mēðie* 'weary' and, in Merc, CorpGl 685 *meniu* 'multitude', Ps(A) *hefie* 'heavy' (2×). See, however, for further discussion and references §7.75.

[2] In cases such as *īl*, *iil*, *sīras*, also LWS *Sīlhearwa* 'Ethiopian', there is double contraction of /iji/ > /iːi/ > /iː/. Note also the inverted spelling ErfGl 138 *tuiġin* 'linen'.

7.71 When /j/ is after a vowel other than /i(ː)/ and is immediately followed by a consonant, especially dental /θ, d, n/,[1] then it is usually vocalized in WS, but since the result of such vocalization would be an abnormal OE diphthong, /i/ is then lost and the preceding vowel is lengthened in compensation. Typical examples include:[2] *brēdan* 'brandish', *-hȳdiġ* 'minded', *mǣden* 'maiden', *strēdan* 'strew'; *onġēan* 'against', *rēn* 'rain', cf. *rīnan*, 7.70, *rēnian* 'arrange', *ðēn* 'thane' and derived forms, *wǣn* 'wagon'. The change occurs equally in inflected forms, for example, *brǣgd* 'he brandished' to *brēdan*, *frǣn* to *frīnan, strǣd* to *strēdan*.[3] Of special importance are the prets. and pa.parts. of the weak verbs *seċġan* and *leċġan*, that is, *sǣde* 'he said', *lēde* 'he laid'. Generally speaking, forms with ⟨g⟩, such as *brēġdan*, predominate in EWS, but in LWS forms without ⟨g⟩ are in the overwhelming majority.[4] In other dialects forms with loss of /j/ are sporadic. Kt has *ongēn*

(2×), 573 *ġēnet* glossing L. *compulit, -brōdenum* (2×), see n3, *-hēdiġra* (with Kt *ē* for *ȳ*), all in OccGl 49, and Ch 328 (‘Saxon-Kentish’, Sweet, 1885: 437) *wēn*. The only examples in Merc appear to be CorpGl 1415 *onġēn* and Ru1 *onġǣn* at MtGl 27.32 beside frequent *onġæġn*, etc. In Nbr Li has occasional instances of *ṃǣden*, *onġǣn*, and *-ðwǣn*, *-ðwēn* ‘washed’ pa.parts. of contracted *þwēan*.

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[1] Before other consonants the change is rare, but the following are sporadic examples before /l/: Bede 436.3 *hrǣl* ‘garment’, LkGl(Li) 23.45, MkGl(Ru2) 15.38 *wāghrǣl* ‘curtain’, EpGl 611 *snēl* ‘snail’, CollGl 1(Junius) 122.24 (printed in T. Wright and Wülcker, 1884: 106–67; reference is to page and line) † *sǣsnǣl* ‘sea-snail’, EpGl 9, CorpGl 1907 *strēl* ‘bed-covering’, all such forms usually alongside forms with *ġ*, such as *hrǣġl*. Note especially that the forms corresponding to the instances of *wāghrǣl* in Li and Ru2 are in both instances *wāghrǣgl*. Presumably /l/ in such conditions, also /r/, syllabified to *hrǣġel*, etc.

[2] I know of no examples of the change before /θ/ except *tīðian* ‘grant’, taken under §7.70.

[3] The change is then analogically extended to the pa.pl. and part. of such verbs, where the velar fricative, rather than /j/ < */ɣ/), stands after the vowel. Hence forms such as *brūdon*, *brōden*; *frūnon*, *frūnen*; *strūdon*, *strōden*. Class III *frīnan* also forms a pa.sg. *frān* on the model of class I.

[4] Notable instances include: CP 111.8 *onġeaġn*, the only such example in the principal WS texts; CP 415.22 *mǣden*, the only such example in EWS, whilst the principal LWS texts lack *mæġden*; and *sǣde*, common in EWS as well as dominant in LWS.

7.72 Although /w/ should never occur finally after a vowel, see §§3.17, 4.9, it was often restored on the analogy of inflected forms, hence *snāw* ‘snow’ for *snā* (only in MtGl(Li) 2×) on the analogy of *snāwas*, similarly WS *cnǣwst*, *cnǣwð* ‘thou knowest, he knows’, on the analogy of *cnāwan*. So too with a great many other nouns, such as *brīw* ‘porridge’, *ġīw* ‘griffin’, *hīw* ‘hue’, *hlǣw* ‘mound’ *īw* ‘yew’, *mǣw* ‘mew’, *slīw* ‘mullet’, *stōw* ‘place’, *strēaw* ‘straw’, *trēow* ‘tree’, and verbs, such as *flēwð* ‘it flows’, *sǣwð* ‘he sows’, *spēwð* ‘it succeeds’. These forms could exist alongside less frequent forms without /w/, such as *ġiġ*, *slī*(*ġ*).

7.73 The subsequent development of analogically restored instances of post-vocalic /w/ is complex, and the following types must be noted. Firstly, if /w/ followed a front vowel and had been restored at an early date, then the combination front vowel + /w/ could equate with the original Gmc diphthongs with second element [u], see Luick (1914–40: §258), Campbell (1959: §273) and, for an alternative view, Sievers (1965: §121.1A2). Hence forms such as: BrGl 1 1.3 *ġīow*, *hēow*, *ēow*, CorpGl *mēau* (3×), ClGl 1 4112 *slēow*, note also the inverted spelling PsGl(K) 118.98 *glǣwne* ‘wise’ acc.sg.m. for *glēawne*.[1] Similar verbal forms are ÆCHom *flēowð* (3×), *spēowð* (1×). Secondly, as the above spellings indicate, even when /w/ combines with the preceding vowel to form a diphthong ⟨w⟩ is usually reintroduced.

This is most probably an orthographic analogy, although there are occasional late forms, such as ÆCHom I 404.5 *strēow* for *strēaw*, which might indicate the influence of following /w/ on the second element of a diphthong, see Campbell (1959: §274).

[1] A similar type of inverted spelling may occur in EpGl 649 *sċrēuua* for *sċrēawa* 'shrew' and CorpGl 1768 *glēu* for *glēaw*, although both cases could be scribal errors.

7.74 The commonest morphological alternations induced by the above changes concern loss of /w/, and in such cases /w/ is often analogically restored or reintroduced orthographically. Typical examples can be seen in §7.73.

7.75 Vocalization of /j/ after /i(ː)/ has an important orthographic consequence, for after that change both ⟨i⟩ and ⟨iġ⟩ can represent /iː/, for example, *brīdel*, *brīġdel* 'bridle'. Similarly in unstressed syllables both ⟨i⟩ and ⟨iġ⟩ can represent /i/, for example, *dysi*, *dysiġ* 'foolish'. Hence we find inverted spellings such as *bīġ* 'by' (also *bīġspel* 'parable'), *hī̆ġ* 'they', for *bī, hī̆.* This phenomenon is then extended to ⟨y⟩ and ⟨yg⟩, hence *dryġġe* 'dry', etc. Such inverted spellings are infrequent in EWS, see Cosijn (1888a: §§29.1, 71, 84 for examples), but much more common in many LWS texts, for example, the LWS Gospels. In Ælfric examples are most frequent in ÆLet and ÆGram, and rare in other texts. Such inverted spellings are naturally a characteristic of WS rather than the other dialects, given the sporadic nature of the change elsewhere.

7.76 In the present tense (but not usually the infl.inf., or pr.part.) of weak class 2 verbs, there is often variation between ⟨i⟩ and ⟨iġ⟩. In WS ⟨iġ⟩ normally occurs before ⟨e⟩, ⟨i⟩ before ⟨a⟩, hence *lufiġe* 'I love', *lufiað* 'they love', but infl.inf. *lufienne*, pr.part. *lufiende.* The situation in Kt parallels WS, whilst in Merc Ps(A) almost always has ⟨i⟩, but Ru1, like the Nbr texts, usually has ⟨iġ⟩ everywhere. NNbr texts, however, often have ⟨ia⟩, as in WS. This variation should not be confused with the variation described in §7.75, and may reflect a genuine alternation between /ij/ and /i/, according to the front or back nature of the following vowel.[1,2] Perhaps this is because medial /j/ could not occur before a back vowel, see §7.29.

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[1] If ⟨iga⟩ spellings in Nbr and Ru1 are taken as analogical (either orthographically or phonologically), then the variations in all texts except Ps(A) (also later texts such as Chad, see Vleeskruyer, 1953: §77) are accounted for in this manner.

[2] LWS *hāliġe*, *hāliġes*, forms of *hāliġ* 'holy', cf. EWS *hālġe, hālġes*, if representing LWS /ij/ against EWS /j/, see Pope (1967–8: 184–5), may represent a partial restoration through analogy of the same system. If this is the case, other forms such as *hālga* would resist the analogy because of the following back vowel, see also §6.16n1.

VI Consonant clusters

7.77 In OE there were several sound changes which increased or decreased the complexity of consonant clusters either initially, medially or finally. These changes can be distinguished under four main headings: (a) gemination; (b) deletion and epenthesis; (c) assimilation; (d) metathesis. The four types are discussed in subsections (a), (b), (c), and (d) below. This classification by phonological result, however, disguises the fact that the first three types of change regularly have a common stimulus or occur under the same conditions. Such parallels will be mentioned at relevant points below.

(a) Gemination

7.78 After the operation of syncope, see §§6.13ff., single consonants could come to be followed by either /r/ or /l/. If the preceding vowel were short, then this would be a repetition of the situation in WGmc by which certain consonants were doubled after a light syllable and before a liquid, for example, **aplu-* > **applu-* > *æppel* 'apple', see §4.14. Thus in OE we find *betera* > *betra* > *bettra* 'better'. Evidence of such gemination is absent from the earliest texts, hence RuthCr *ætgadre* 'together', CorpGl 512 *ġegaedradon* 'you united',[1] but is found in CP, Ps(A), Ru *bettra* and forms, CP 457.14 *ætgæddre*, CollGl 1(Junius) † (-)*buttorflēoġe* 'butterfly' (2×), LWS (incl. Ælfric), Ru1 *miċċle* and forms 'much'.[2] This would suggest that the change began to take place by the ninth century. There are many forms which either do not show gemination, such as *betra*, or which are unsyncopated, such as *betera*. The former may show failure of the change because of the competing reduction of triple consonant clusters, see §7.80, or be an orthographic variant; the latter are due to the common levelling away of syncope on the analogy of uninflected forms.

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[1] But compare PsCa(A) 13.7 *ġegadrades* 'thou didst gather', also without gemination but in a text where gemination exists elsewhere.

[2] Also Ps(A) 48.20, PsCa(A) 7.34 *feddra*, *feddras* 'father' infl., beside frequent ungeminated forms, see Campbell (1959: §453n4), although the examples may be purely scribal.

7.79 Unlike the situation in WGmc, when in OE a single consonant came to occur after a long vowel and before /r/,[1,2] then that consonant was likely to be lengthened. In such circumstances the preceding vowel was then shortened, in order to avoid extra-heavy syllables, see §5.199. A typical example is: *nǣdre* > *næddre* 'adder', note the short vowel of the PDE form. Other similar examples are: *æddre* 'vein', *blæddre* 'bladder', *tyddre* 'weak'. The change is common in inflected forms, such as *attres* 'poison' gen.sg., and then analogically extends to uninflected forms without syncope, thus *attor*. Similar forms are: *foddor* 'fodder', *hlædder* 'ladder', *moddor* 'mother', *tuddor* 'progeny'.[3] In most cases forms with geminate consonants are more common throughout the period, especially in LWS. Exceptions are *moddor* and *tuddor*, where ungeminated *mōdor, tūdor* dominate. A special instance of the change takes place before the comparative inflexion *-ra* and also the strong adjective inflexions *-ra*, *-re*. Examples from Ælfric include: *deoppre* 'deep', *goddre* 'good', *hattre* 'hot',[4] *hwittre* 'white', *swettran* 'sweeter', *widdre* 'wide'. Note also the EWS example CP 227.24 *ġeliċċran* 'more alike'.[5]

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[1] Examples before resonants other than /r/ are extremely rare, but note Nbr and, in inflected forms, WS *lyttel* 'little', and possibly also *maððum* 'treasure', mostly in poetry, see also §7.46n4. Before /j/ gemination took place if a previously long vowel were shortened in weak stress, hence *ōnettan* 'hasten' < **anhetjan* < **anhaitjan*, also *andettan* 'confess', *ōrettan* 'fight'. Such examples, however, must be very early, certainly earlier than syncope, since palatalization does not occur. It is probably best, on the other hand, to take *feċċan* 'fetch' < *fetian* as an example solely of assibilation, see §7.35, note the absence of a form such as ***fettian*. For alternative views see Bülbring (1902: §546), Luick (1914–40: §667), Brunner (1965: §227A3)

[2] Other apparent examples occur in Nbr, but it is unlikely that they indicate gemination, see §2.78n1 and references.

[3] Presumably here too long vowels were shortened, cf. PDE *fodder*, etc. But it is unclear whether the shortening was phonological or analogical, see Luick (1914–40: §668n3).

[4] And hence extended to ÆLS 14.107 *hattost* 'hottest'.

[5] LS 12.19 *sylra* 'better' must derive from **syllra* < *sellra* (cf. MtGl(Li) 10.31 < *sēlra*), since the shift of /e/ > /y/ occurs only with short vowels, see §5.171n2.

(b) Deletion and epenthesis

7.80 Geminate consonants were liable to shortening in a variety of circumstances in OE. In stressed positions, that is, immediately following a stressed vowel, all geminate consonants were shortened finally, and medially all geminate consonants were shortened if preceded or followed by another consonant. Typical examples of final shortening include: *eal* 'all' < *eall*, *bed* 'bed', *feor* 'far', *hen* 'hen', *man* 'man', *nyt* 'useful', *sib* 'relationship', *swam* 'he swam'. Medially, since WGmc gemination had either failed in similar contexts or had already been simplified, for example, **sandjan* > *sendan* 'send', not ***senddan*, see §4.11, geminates could only arise through either compounding, metathesis, syncope, or the addition of inflexions beginning with a consonant.[1] Typical examples in compounding are: *eorliċ* <**eorl-līċ* 'manly', *wildeor* 'wild animal', *wyrtun* 'garden'. Examples in metathesis are: *cresse* > **cersse* > *cerse* 'cress', *irnan* 'run', *wærna* 'wren'. Examples in syncope are of two forms: either the stem of the verb ends in /s/, in which case the 2nd sg.pr.ind. is formed as follows: *ċȳsist* > **ċȳsst* > *ċȳst* 'thou choosest', or in weak verbs ending in a dental the pret. is similarly formed, for example, *sendede* > **sendde* > *sende* 'he sent'. The inflexions which cause simplification are the adjectival inflexions *-ne*, *-ra*, *-re*, where these cause simplification of a preceding, rather than following, geminate, hence from *eall* ‘all’ we find *ealne*, *ealra*, *ealre*. Simplification of geminates is regularly found with all other verbs and adjectives of the same type as these examples. In unstressed positions, where geminates are the result of compounding or suffixation or the addition of inflexions such as *-ne*, *-ra*, or *-re*, geminates are shortened even when intervocalic. Typical examples include: *æftera* ‘second’ < *æfterra*, *æmetiġ* ‘empty’, *bliċċetung* ‘coruscation’, *gyldene* ‘golden’ masc.acc.sg., *ōðera* ‘second’, and *þises*, *þisum*, forms of *þes* ‘this’, occurring in unstressed position. The end product of these apparently various shortenings is in fact uniform, in that geminate consonants only remain if they are both intervocalic and the immediately preceding vowel is stressed.[2,3]

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[1] But geminate consonants could also arise by the processes described in §7.79, and it is possible that forms of the type *nǣ̆dre* could show simplification rather than failure of gemination. LS 12.19 *sylra*, see §7.79n5, with a short vowel and non-geminate /l/, would seem to confirm this possibility.

[2] But if geminate consonants occur intervocalically after a stressed syllable, as in *ġelēafful* ‘faithful’, degemination is much less common, hence only occasional *ġelēaful*, and similarly occasional *lateow* ‘leader’, *rūmodliċe* ‘liberally’ alongside usual *latteow*, *rūmmodliċe*. The relative rarity of degemination in such circumstances is wholly to be expected, see the discussion of ambisyllabicity in §2.81.

[3] One apparent exception to these processes is the geminate represented by ⟨cg⟩, which always remains, for example, *eċġ* ‘edge’. But there is no need to deny shortening here, since there would have been no orthographic method of indicating the change. On the other hand, even if shortened the cluster could have remained bimoric, that is, /eʤ/ rather than /eʤ/.

7.81 There is considerable variation in the spelling of such shortened geminates. Thus finally, and taking as three typical examples *bed*(*d*) ‘bed’, *eal*(*l*) ‘all’, *man*(*n*) ‘man’, in EWS we find the following spellings:[1] *bedd* (always), *eall:eal*::7:2, *mann:man*::1:2. In ÆCHom the parallel ratios are: *bed* (always), *eall:eal*::1:1, *mann:man*::3:10. Such ratios seem to confirm that shortening was a process more often found in later than earlier texts. The variations in spelling are most probably due to orthographic influence from inflected forms, such as *mannes*, and are unlikely to be phonological, see Kurath (1956) and, for other views, Campbell (1959: §§66, 457). In other positions also both geminate and single spellings occur, but most usually the geminate spellings may be taken to indicate etymological or morphological origin.

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[1] The figures for EWS are taken from Cosijn (1888a: §§138–9; 1888b: §31).

7.82 Somewhat akin to the shortening of medial geminates when preceded by another consonant is the sporadic reduction of groups of three consonants, whether medial or final. Although a quite wide variety of forms exhibits such reduction of complex groups, it would appear that two factors influenced the loss of particular consonants: (1) a stop consonant was more likely to be lost than a fricative or sibilant, examples in §7.83; (2) if more than one stop consonant existed in the group then loss was usual of the medial, but also perhaps of the initial, and not at all of the final, examples are given in §7.84. The only other common type of loss in such groups was loss of /n/ medially (§7.85), and some miscellaneous cases are mentioned in §7.86. Generally speaking these losses are most often represented in late or very late texts, for one such example see C. Sisam and Sisam (1959: §70).[1]

[1] As such, it is difficult to determine the significance of some spellings, for they might be the result of carelessness of scribes. But in many cases they may represent the pronunciation of less formal speech.

7.83 The most frequent cases of loss involving a stop are of /t/ either before or after /s/, but this was probably due only to the relative frequency of such groups, for the evidence suggests that any stop could be lost if in a group of three consonants. Typical examples of loss of a dental stop where only one stop occurs are: *betst* > *best* 'best', similarly other forms,[1] *blostma* > *blosma* 'blossom',[2] *brastlað* > *braslað* 'it crackles', **belistnian* > *belisnian* 'castrate',[3] *ēhtst* > *ēhst* 'thou *persecutes*', *findst* > *fintst* > *finst* 'thou findest' (similarly, other examples of the 2sg.pr.ind. of strong verbs), *milts* > *mils* 'mercy', *nostle* > *nosle* 'fillet, band', *yntse* > *ynse* 'ounce'; *andlang* > *anlang* 'along', *baldliċe* > Nbr *balliċe* 'boldly', similarly Li *moniġfalliċe* 'manifoldly', *seldliċ* > *selliċ* (also *sylliċ*, see §5.171n2) 'wonderful', and, in more weakly stressed syllables, sporadic examples of *-enliċ* < *-endliċ*, such as *unacumenliċ* 'unbearable', *unġefērenliċ* 'inaccessible'.[4] Examples of loss of a velar stop include: CP *ġebrinð* < *ġebringð* 'it brings',[5] *horscliċe* > *horsliċe* 'readily', *lencten* > *lenten* 'Lent', *muscle* > *musle* 'muscle', *strengð* > *strenð* 'strength'.[6] One example of loss of a labial stop occurs in *dumbne* > ÆHom 18.25 *dumne* 'dumb' acc.sg.masc., see also §7.84.[7]

[1] Note that here final /t/ is not then lost, nor in *ēhst*, *finst*, even although in a triple cluster, see §7.84.

[2] But *blostm* is never reduced to ***blosm*, presumably because /m/ is here syllabic. In other respects, however, there is no requirement that the three consonants should be tautosyllabic.

[3] Although **belistnian* does not occur in our texts, forms such as *belistnode* do, and there is no reason to suppose that forms with /t/ were rare, *pace* Campbell (1959: §477.2).

[4] Even in non-primary-stressed syllables the change is sporadic, hence more frequent *sōðfæstnes* 'truth', and similar forms, alongside *sōðfæsnes*, etc.

[5] Usually corrected spellings appear in the mss., that is, *ġebringð*.

[6] In OccGl 49 842 *strenðe* occurs alongside 795 *strengð*, together with a number of other examples with omitted ⟨g⟩, thus 183 *ġionne* (for *ġiongne*) ‘young’ acc.sg.masc., 697 *hinrað* (for *hingrað*) ‘is hungry’, *286 ġemende* (for *ġemengde*) ‘it has mixed’. But note that the same text also has loss of final ⟨g⟩ in examples such as 642 *stran* (for *strang*) ‘strong’, and all such forms may be due to scribal carelessness, see Williams (1905: §§90.5, 106).

[7] Note also *ācumba* > *ācuma* ‘oakum’, with possible loss of /b/ in a weakly stressed position, but cf. 7.91n5.

7.84 Occasional examples of a stop being lost where more than one stop occurs in a group of three consonants are as follows, where the medial stop is lost: **cembde* > Med 1.1.121 (2×) *cemde* ‘she combed’, *eldcung* > *elcung* ‘delay’, *seldcūð* > *selcūð* ‘strange’. Possible examples involving the initial stop in a group of three are always of the type *ēhtst* > *ēhst*, discussed under §7.83.

7.85 The most frequent examples of loss of /n/ when medial in a group of three occur with immediately preceding /m/. Thus are found, even in early texts, regular *nemst*, *nemð*, *nemde*, forms of *nemnan* ‘name’, beside only Bede *nemnde* (3×), Chron(A) 891.10, HomS 1.97 *ġenemnde*,[1] EWS *emnliċe* > LWS *emliċe* (also at Or 60.3) ‘equally’, AldV *fǣmhā(d)liċ* - (2×) ‘virginal’ alongside more frequent *fǣmnhād-*.[2] Examples, usually late, after consonants other than /m/ include: *elnboga* > *elboga* ‘elbow’, *ondrysnliċ* > *ondrysliċ* ‘terrible’, *Sæterndæġ* > *Sæterdæġ* ‘Saturday’, *wǣpnman* > *wǣpman* ‘man’.[3]

[1] Also † *aremdest* (in Logeman, 1889: 505, 1.4) ‘thou didst endure’ < **aremnan* < *aræfnan*.

[2] In this and similar forms /n/ may have often been retained from the simple form, that is, *fǣmne* ‘woman’.

[3] It is debatable whether AntGl 4.990 *agneras* ‘corners of the eye’, against C1G1 1.3241 *ongneras*, is an example of loss of /n/ ([ŋ]) initially or merely an error.

7.86 Various other examples of consonant loss in groups of three are perhaps too sporadic and scattered to be accorded much significance.[1] Some examples include: *ferhð* > *ferð* spirit’,[2] *myrhð* > *myrð* ‘mirth’, Angl *marġen* > *marne* ‘morning’, cf. §5.34, Ch 1428.8 *weorsċipe* ‘worship’. Further examples can be found in Campbell (1959: 477.6), Klaeber (1903: 243–5), von Feilitzen (1937: 95).[3]

[1] The examples of loss of /w/ in groups of four as cited by Luick (1914–40: §677.10), namely Christ 1436 † *andlata* ‘face’ and late † *ærendreca* ‘messenger’, are unlikely. The former appears to be a scribal error; the latter, which I have not found, would most probably be due to confusion between *ærendraca* and *ærendwreca*.

[2] Also, by metathesis of *fyrhð*, see §7.95, And 174, Gen 1142 *frið*.

[3] In late Kt and LWS loss of /r/ occurs in *sprecan* ‘speak’ and forms. In OccGl 49 forms without /r/ occur 4×, with /r/ 1×. In LWS *r*-less forms are uncommon in Ælfric

mss., but quite frequent in WHom and the LWS Gospels. The loss is seen in a few other words, notably LWS *prætiġ* > *pætiġ* 'sly' (also Nbr), and is quite frequent before /n/ in unstressed syllables, hence *īsern* > *īsen* 'iron', and the compounds of *-ærn* 'house', such as *beren* 'barn', *cwearten* 'prison'. Nbr texts frequently spell the unstressed syllable *-en* as *-ern*, for example, *efern* for *efen* 'evening', and similarly *fæstern* 'fast', *wōēstern* 'desert', which may be examples of inverted spelling. Such loss in unstressed syllables should be distinguished from the loss prevocalically, and it is doubtful whether any of these instances are properly to be linked with the other examples of consonant loss discussed above. For further examples of /r/ loss see Campbell (1959: §475).

7.87 Much less frequent than the simplification of consonant clusters by deletion is the reverse process of epenthesis. The most regular examples of epenthesis occur medially[1] between a nasal or, less commonly still, the strident /s/ and a sonorant consonant, that is, a liquid or a nasal. In such cases the epenthesized consonant agrees with the preceding consonant in place of articulation and the following sonorant in voice. Instances of epenthesis after a nasal are: *bræmbel* 'bramble', CP 187.6 *cumbel* 'wound',[2] EpGl, ErfGl 185 *hymbliċae* 'hemlock', *symble* 'always' (WS, Nbr); EpGl, ErfGl 729 *cendliċ* 'convenient', *endleofan* 'eleven' (WS), ErfGl 729 *morġendliċ* 'morning', ÆGram 43.11 *gandra* 'gander' (other texts have *ganra*).[3] Instances of epenthesis after /s/ are: *hwistle* 'whistle' and derived forms (only with epenthesis), *mæstling* 'brass', but Nbr *mæslen*, *mistliċe* 'variously' (esp. WHom), Mart 5.1375 *ondrystlicum* 'terrible', see §7.85, Bede 300.2 *towestnis* 'discord'.[4]

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[1] There are occasional examples of initial ⟨scl, scn, scm⟩ for ⟨sl, sn, sm⟩. Examples of ⟨scl⟩ appear to be restricted to CorpGl 433 *sclāt* 'tore', Ch (various) *sclǣd* 'slade, greensward', OccGl 49.694 *sclēacnes* 'laziness', Alex 399 *scluncon* 'they crawled', CorpGl 693 *asclǣcadun*, CollGl 49.696 *asclacade* 'loosened', and a few other late forms including ⟨stl⟩ spellings in PsGl(K), see K. Sisam (1913: 305), C. Sisam and Sisam (1959: §68). For ⟨scm⟩ there is only PsGl(A) *scmēġende* 'considering', and for ⟨scn⟩ CP 155.17 *scnīcendan* 'crawling'. Neither the intention nor the cause of these spellings is clear, see K. Sisam (1913: 306–7), Brunner (1965: §210.1), Luick (1914–40: §650). If they represent epenthesis of /k/, this is more probable in the slightly more frequent examples before /l/. Further, the form *scmēġende* is almost certainly an error, see K. Sisam (1913: 305). No one, apparently, has investigated the possibility that spellings such as these might indicate a shift of /s/ > /ʃ/. But this might be more plausible as an explanation than consonant epenthesis.

[2] But *cumbol* 'banner', for example, infl. *cumbles*, is general in Gmc and hence less certain.

[3] An example of epenthesis between a nasal and an obstruent is LWS (3×) *æmptiġ* 'empty'.

[4] Lch II, Alex have *balzam* 'balsam', with epenthesis between /l/ and /s/.

(c) Assimilation

7.88 The most general type of assimilation in OE was voicing assimilation, whereby a voiced consonant became voiceless when immediately followed by a voiceless consonant. This change can be seen as the converse of the voicing of fricatives between voiced sounds discussed in §§7.54–8, although here the change also affects stops, hence not only *ġeoguð* > OccGl 49.1097 *ġiohð*- 'youth', with devoicing of /ɣ/ > /x/ before /θ/, but also *milds* > *milts* 'mercy', with devoicing of /d/ > /t/ before /s/. In cases involving the fricatives /f, θ, s/, as with voicing, the change cannot be detected orthographically and, furthermore, the history of a particular sound may involve both voicing and, after the operation of syncope, devoicing. For example, WS *drīfst* derives from **drīfest* > **drīfest* (with voicing to [v]) > **drīfst* (syncope) > *drīfst* (voicing assimilation to [f] before /s/). The examples involving orthographic change, however, show that the sound change was phonologically real and it may be approximately stated as follows:

$$\text{C} > [-\text{voice}] \;/\; \underline{\qquad\qquad} \begin{bmatrix} \text{C} \\ -\text{voice} \end{bmatrix}$$

7.89 As stated in §7.88, the major types of example of voicing assimilation which were orthographically represented involved either stops or the fricative /ɣ/. In the case of stops examples are restricted to /d/ and, after nasals, [g], due to the distribution of stops and fricatives outlined in §§7.2–3. Examples involving /d/ include forms of:[1] *bletsian* 'bless', *bletsung* 'blessing', *ġītsung* 'greed', and *milts* and derivatives 'mercy', also CorpGl 1734 *etsīth* 'a looking again', and the 2,3sg.pr.ind. of verbs such as *lǣdan* 'lead', *rǣdan* 'advise', hence *lǣtst*, *rǣtst,* **lǣtð*, **rǣtð*.[2] Parallel examples for [g] are relatively infrequent, but include occasional *ancsum* 'troublesome' beside more frequent *angsum* and *strencð* 'strength' beside *strengð*. The change only rarely affects the 2,3sg.pr.ind. of verbs such as *bringan* 'bring', so that we find rare *ġebrincst*, *brincð* beside usual *bringst*, *bringð*.[3] Instances of the assimilation of [ɣ] > [x] include[4] OccGl 49.1097 *ġiohð*-, see §7.88, and cases of the 2,3sg.pr.ind. of verbs such as *lēogan* 'lie', *stīgan* 'climb', thus *līhst*, *līhð, stīhð* alongside *līgst*, etc.[5] In such cases the earlier change of /xs/ > /ks/, see §7.6, does not usually re-occur, and even forms such as *hēxta* 'highest', cited in §7.6, are usually less common than *hēhsta*, etc.

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[1] These examples usually co-exist alongside less frequent examples with ⟨d⟩, such as *bledsian*. Generally speaking, patterned variation is difficult to detect, but note that Ps(A), also Ps(C) regularly show no signs of voicing assimilation and, for example, CP has only *bledsung(e)* 'blessing', although assimilation is found in other forms in the same text. A further example of assimilation may be CorpGl 799 *sċulthēta* 'bailiff'.

[2] For subsequent changes giving *lǣtst* > *lǣst*, **lǣtð* > *lǣtt*, etc., see §§7.83, 91.

[3] For loss of the velar stop in clusters, for example, *brinð*, see §7.83.

[4] In these cases [ɣ] may be either original or from [j] which either reverted to [ɣ] after syncope or was analogically replaced by [ɣ], see §7.29. Although it is often claimed, for example, in Luick (1914–40: §649A2), that [j] cannot be subject to such

assimilation, hence *eġsa* ‘terror’, other forms may indicate a shift, for example, *ē(a)hsȳnes* ‘with one’s eyes’. Perhaps one should take account of the orthographic problems in representing [ç].

[5] Additional examples appear to include the type represented by *myrhð* ‘mirth’, where it is unnecessary to suppose that ⟨h⟩ is for ⟨g⟩, *pace* Campbell (1959: §480.3n1). If [ɣ] can be devoiced, there seems no reason why its palatal counterpart [j] cannot also be devoiced. A further type is represented by common LWS *nē(a)h(h)ebūr* ‘neighbour’ < *nēahġebūr.*

7.90 Voicing assimilation also occurs rightwards when a voiceless consonant is followed by /d/. This phenomenon is most widespread in the preterite of class 1 weak verbs, where medial *i/e* was syncopated after a heavy syllable. In such cases the preceding consonant may be either a voiceless stop or a voiceless fricative, where the latter had remained voiceless either in gemination or due to a preceding voiceless stop, and the consequence of the change is that /d/ devoices to /t/. Examples are very numerous and regular, the various types being represented by, for example: **slǣpde* > *slǣpte* ‘he slept’, *mētte* ‘he met’, *sīcte* ‘he sucked’; *pyfte* ‘he puffed’, *cyste* ‘he kissed’, *līxte* ‘he shone’. Spellings with ⟨d⟩ are rare and most often found in Li, for example, LkGl 9.39 *ġegrippde* ‘he gripped’, LkGl 8.23 *slēpde*, MtGl 27.52 *slēpdon* ‘he, they slept’, and, especially, frequent *ġenēolēcde* ‘he approached’ and related forms beside occasional *ġenēolēcte*. Outside Li examples are rare, but note Mt(WSCp) 27.44 *hyspdun* ‘they mocked’, CorpGl 1082 *ræfsde* ‘he seized’.[1]

[1] To these may perhaps be added CP(H) 257.24 *wyrmsde* ‘it suppurated’, but note the alternative CP(C) form † *wyrsmde*.

7.91 Full assimilation of consonants in clusters also occurs, although it is generally sporadic and often prevented by inflectional juncture. The direction of assimilation is usually leftwards, and the assimilation is most often to a resonant, that is, /m, n, l, r/, for assimilation to obstruents see §7.92. There appears to be some restriction on the assimilating consonant. For assimilation to /l, r/ the assimilating consonant must also be dental or alveolar,[1] whilst for assimilation to a nasal any consonant may be affected but labial consonants retain their place of articulation even if the nasal is /n/.

(1) Assimilation to /n/ is found with /f/ and, occasionally, /p, s, x/. In the case of the labials the shift is partial and to /m/. Examples of /fn/ > /mn/, all beside forms without the shift, are *emn* ‘even’, *hremn* ‘raven’,[2] *stemn* ‘voice’,[3] *stemn* ‘period’, *stemn* ‘stem’, and *nemne* ‘unless’.[4] All these forms are WS except that *stemn* ‘voice’ is also found in Ru1 and *nemne* is principally Angl. For a full discussion see Flasdieck (1950: 142). /pn/ > /mn/ is seen in occasional LWS *wǣmm* ‘weapon’. Li *ðionne*

'this' acc.sg.masc. (3×) alongside usual *ðiosne* is the principal example of assimilation of /sn/. For /xn/ > /nn/, if this is not to be taken under n1, there is WS *hēanne* 'high' acc.sg.masc. and LWS, lNbr *hēannes* 'highness', see also §5.100. Rightwards full assimilation to /n/ occurs in poetical *benne*, *bennum* 'fetters' (4×) < *bend*. Otherwise in such contexts, there is rare place assimilation with a following obstruent, as in *elmboga* 'elbow', Beo 1269 *ġimfæste* 'huge', alongside *elnboga*, *ġinfæste*, and Beo 3033 *hlimbed* 'bed of rest'.[5]

(2) Assimilation to following /l/ occurs with /d, n, s/, but is always infrequent. Examples of each are: AldV 13.1 535 *fǣmnhālicum* 'virginal' dat.sg.neut. with ⟨l⟩ for ⟨ll⟩, see §7.80,[6] lNbr *ællef* 'eleven' and forms, forms of *þylliċ*, lNbr *þulliċ* 'such'.

(3) Examples involving /r/ include /n/ > /r/ in Ch 1438(1) † *Cyrredi* personal name and the further proper names *Æþer(r)ed*, *Eðeriċ*, both with /l/ > /r/. In contrast lNbr especially has *sella* 'better' < *sōēlra*, with /lr/ > /ll/. A possible example of rightwards assimilation is *lāreow* 'teacher', but this is more probably due to simplification of *lār* + *þēow* in compounding.

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[1] The frequency of EWS *hīerra* (to the exclusion of ***hīehra*), LWS *hȳrra* 'higher' would suggest that this cannot be an example of the sporadically attested type of assimilation under discussion. This seems to be confirmed by the phonology. It is more probable that we are dealing with a special instance of loss of [h] between a vowel and a resonant, with compensatory lengthening of the resonant. Note that LWS *hēahra* is presumably a spelling based on the analogical reformation of the comparative, without any necessary phonological implication. The same explanation can also hold for *nēarra* 'nearer'. MtGl(Ru) 21.31 *nǣrra*, DurRitGl 1 120.4 *hērra*, both with analogical restoration of /x/, may also be so explained, although the latter could merely show lNbr illogical doubling of consonants.

[2] Quite frequent LWS *hrem*(*m*) and forms probably show full assimilation of /fn/ > /mm/, but with the nasal becoming labial.

[3] LS 34 1.162 *stemme* may, if not a scribal error, show the same assimilation as in *hremm*. Luick's (1914–40: §682) suggestion that this is a word- and syllable-final phenomenon is not convincing.

[4] LkGl(Ru2) 1.27 *fǣfne* 'woman' acc.sg. is an unusual inverted spelling for *fǣmne*. Note that the form is Nbr rather than Merc.

[5] PrudGl 1 246 *ācuma* 'oakum' and Or 173.10 *oferclom* 'he climbed upon' are both uncertain examples of /mb/ > /mm/ with simplification of the resultant geminate, see §7.83n7 for *ācuma*.

[6] In view of AldV 13.1 1717 *fǣmnhādliċere, fǣmnhālicum* may simply be an error.

7.92 Full assimilation to obstruents occurs in three distinct environments. The first of these, which is frequent and regular, involves dental stop + fricative, which develops as /tt/. The stop may be originally either voiceless or voiced, in the last case already becoming voiceless by §7.89. The change is particularly common in the 3sg.pr.ind. of verbs, such as *lǣtt* 'he leads'

< *lǣteþ*, *rītt* 'he rides' < *rītþ* < *rīdeþ*, *mētt* 'he meets' < *mēteþ*. Any exceptions are extremely rare and of no significance. Where the result is consonant + geminate, for example, *bindeþ* > ***bintt*, degemination occurs, for example, *bint* 'he binds', see §7.80. Examples involving nouns include *lātteow* 'leader', *ofermētto* 'pride', alongside *lātþeow*, *lādteow* (with assimilation of the stop feature alone), *ofermēdo*, and *ġesynto* 'health'. Cliticization leads to assimilation in frequent *þǣtte* 'that' < *þǣt þe* and PsGl(B) *mitty* 'when' (2×) < *mid þy*.[1] Secondly, in late texts there is the reverse assimilation of /θd/ > /dd/. Hence we find frequent *cȳdde* 'he declared' in Ælfrician and other texts of the same period, usually far more often than *cȳþde*, the usual earlier form[2] The third type involves /s/, and may be subdivided in two. Firstly, /θs/ > /ss/, which is especially common in the 2sg.pr.ind. of verbs, such as *cwist* 'thou sayest' < *cwiþst* < *cwiðest*, similarly *cȳst* 'thou makest known'. These exist alongside forms such as *cwiðst*, *cȳðst*, probable analogical replacements. Common examples elsewhere include *bliss* 'bliss', *liss* 'kindness'. The second sub-type is the assimilation of /sr/ > /ss/. This is found in the irregular comparatives *lǣssa* 'less' < **lǣsra*, *wyrsa* 'worse' < **wyrsra*, the gen. and dat.sg.fem. and gen.pl. of *þes* 'this', that is, *þisse*, *þissa*, although in Nbr reformation takes place, note especially gen.pl. *ðisra* as well as dat.sg.fem. *ðis*(*s*)*er*, and, against outside Nbr, in inflected forms of *ūser* 'our', hence *ūsses*, *ūssa*, *ūssum*. The assimilation of /sr/ > /ss/ is generally held to be early, for otherwise [sr] would have shifted to [zr] by voicing assimilation, and, it is held, [zr] could not develop to [ss], see Campbell (1959: §484n1). Also in favour of such a view is the regularity of assimilated forms. On the other hand, if [zr] assimilated to [zz], this would be a voiced fricative geminate, which is abnormal for OE, and the geminate may have shifted to the usual /ss/ by substitution. Even if [zz] remained, there was no obvious orthographic representation other than ⟨ss⟩. Hence the facts must remain uncertain.

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[1] Note also Chron(A) 755.34 *þæt tæt*, presumably also a case of assimilation after cliticization, in an example of indirect speech.

[2] It is unclear to me what Campbell intends when he states (1959: §482) that 'the resistance [to the change of /θd/ > /dd/] was phonological.'

(d) Metathesis

7.93 Two types of metathesis commonly occurred in OE. The first type, which involves reversal of /r/ + short vowel sequences, is termed *r*-metathesis; the second type involves the inversion of consonant + consonant sequences. The dominant type here involves /s/ and may therefore be termed *s*-metathesis, see however §7.13 for metathesis of /l/ > /ld/. Of these types *r*-metathesis is the more frequent and has more phonological consequences, and it is therefore discussed first below.

7.94 R-metathesis normally occurs when /r/ is followed by a short vowel and a dental or alveolar consonant, usually /n/ or /s/ (including /s/ in */sk/ > later /ʃ/), less often, and in Nbr only, /d/. Typical examples of the change are: *ærn* 'house', *hærn* 'wave', *bærst* 'he burst', *bærstlian* 'crackle', *dærstan* 'dregs', *gærs* 'grass', *wærna* 'wren', *ærnan* 'run' *bærnan* 'burn' (both weak class 1), *berstan* 'burst', *þerscan* 'thresh' (both strong class III), *cerse* 'cress', *fersċ* 'fresh', *cyrps* 'curly', *forsc* 'frog', *forst* 'frost', *hors* 'horse'. All the above examples involving a front vowel show no evidence of breaking, but when the relevant vowel is /i/, then half-breaking occurs, see §5.26. Consequently we find forms such as EWS *biernan*, *birnan*, *byrnan*, LWS *byrnan*, Merc *beornan*, Nbr *biornan* 'burn' and similarly for *yrnan* 'run', *fyrst* 'period'. It may be that *i*-umlauted forms such as *wærna*, *ærnan*, *bærnan* quoted above show a similar lowering effect of /r/, for an alternative explanation see §5.78n5. It is noticeable that when the following consonant is /d/ there is no further sign of metathesis, hence Nbr *birdas* 'birds', *ðird(d)a* 'third'.[1] The same metatheses are found in secondary-stressed and unstressed syllables such as AntGl, ClGl 1 *cnēw- hand-wyrst* 'knee, wrist', Mart 5.138 *ondyrstlecum* 'terrible' dat.pl., Nbr, Ru1 *tinterg* 'torment'.[2]

[1] Exceptionally *r*-metathesis occurs with an intervening long vowel in *ġesċȳrded* 'clothed', found at And 1311, El 141, and in various LWS texts.

[2] It is possible that in *tinterg* the fricative reverts to a velar, as against usual *tintreġ*.

7.95 Sharply to be distinguished from the *r*-metatheses discussed above are cases where post-vocalic /r/ is metathesized to stand before a short vowel. These cases are mainly restricted to lNbr and occur where /r/ is originally followed by /xt/. Typical examples from lNbr are: *breht* 'bright', *froht* 'afraid', *frohtiġa* 'fear', *fryhto* 'fright', *wrihta* 'maker', *wrohte* 'worked'. Outside lNbr we find only Ru1 forms of *frohtiġan* 'fear' and occasional EWS, LWS *wrohte* 'worked', GenA, B 106 *stīðfrihþ* 'stern of mind', together with, in secondary stress, the name-element *-byrht, -berht*. Very occasional forms such as MtGl(Li) 28.4 *fyrihto*, MkGl(Li) 5.33 *forohtade*, JnGl(Li) (2×) *ġeberehtnad* indicate that the process here was initially one by which the heavy consonant cluster /rxt/ was broken up, and then stress transferred to the epenthetic vowel, see Brunner (1965: §166),[1] and *pace* Campbell (1959: §459n2).[2,3]

[1] The same position is held by Lass (1978: 258), but his further conclusions are untenable.

[2] Not to be taken here are the occasional examples LchI (3×) *sċruf* 'scurf', ErfGl 307, CorpGl 557 *ðrop* 'farm', which are presumably inverted spellings from the metathesis discussed in §7.94. The form † *wrusm* is not OE, but from *Ancrene Riwle*, see Bosworth and Toller (1898: worms).

[3] The restrictions on this metathesis and its phonological explanation both exclude as irrelevant Inscr 8.2.3 *berōþor* 'brother', see §6.34n1.

7.96 In the instances of *s*-metathesis the other consonant involved is usually a voiceless stop. There is no clear preference for one order over another, and therefore there are metatheses of both /s/ + stop and of stop + /s/. The change is, however, largely restricted to LWS.[1] Examples of /sp/ > /ps/ are: *æpse* 'aspen', *cops* 'fetter', *hæpse* 'hasp', *wlips* 'lisping', all except *hæpse* also with ⟨sp⟩; note also *cyrps* 'curly', cf. §7.94. The reverse metathesis occurs in *wæsp* alongside *wæps* 'wasp'. With /t/ only metathesis of /ts/ > /st/ is found: MtGl(Li) 3.1 *bæstere* 'baptist' alongside *bæzere*, CorpGl 296 *thrūstfell* 'leprosy', cf. Goth *þrūtsfill*. With /k/ only metathesis of /sk/ > /ks/ is found,[2] and such cases are naturally restricted to positions where /sk/ is unpalatalized and unassibilated, that is, before back vowels, see §7.14(4). There, however, LWS texts[3] show a great many metathesized forms with ⟨x⟩ representing /ks/, such as *axan* 'ashes', *axian* 'ask', *dixas* 'dishes', forms of *dox* 'dark-coloured', *fixas* 'fishes', *frox* 'frog', *ġeoxa* 'sobbing', *hnexian* 'soften', *huxliċe* 'insultingly', *max* 'nets', *muxle* 'muscle' (< Lat *musculus*), *rixum* 'rushes' dat.pl., *toxa* 'toad, frog', *tux* 'tusk', *þerxan* 'thresh', *waxan* 'wash'.

[1] One form which occurs widely, however, is *betwix* 'between', which Luick (1914–40: §693.2a) suggests may be a low stress form. The form occurs as early as 888 in ChHead 1204 1.1 and at CP 423.4, also CP *betwēox* (5×).

[2] ErfGl 321 *aesc* for *æx* 'axe' is probably an error, as is the reverse example 302 *merix* for *mersċ* 'marsh'. However, LawIne 43.1 *æsc* 'axe' may be a sole genuine example of /ks/ > /sk/.

[3] Outside WS metathesis of /sk/ > /ks/ is found frequently in MtGl(Ru) 19.17 *ġeaxas* 'thou askest' and other inflected forms, although this may be due to WS influence. See also n1 above.

7.97 There are number of cases of *s*-metathesis other than those outlined in §7.96, thus: ÆCHom I, 3 56.33 *ġyrstandæiġ* 'yesterday', Bede (4×) *clǣsnunge* 'cleansing' dat.sg.,[1] CP 273.21, Lch I (4×), EpGl 777 *worsm* 'pus'. It is noticeable that the last two cases are relatively early (although *clǣsnunge* reoccurs in late texts), and they may therefore not be entirely trustworthy. The example of *ġyrstandæiġ* probably shows metathesis of /st/ with /r/, /st/ being treated as a unit, see §2.83(1).

[1] Note also the confused spelling Bede 5 442.12 *clǣnsnunge*, the same error occurring occasionally in minor texts.

VII Loss of final nasals

7.98 A change specific to Nbr, and which is already found in the earliest Nbr texts, is the loss of word-final /n/. Amongst early texts examples are: CædH 9 *foldu* 'earth' acc.sg., 1 *herġa* 'praise' (L only), LRid 11 *eorðu* 'earth' acc.sg., 8 *ōuana* 'from anywhere', RuthCr 48 *bismærædu* 'they reviled', 57 *kwōmu* 'they came', 40 *ḡalḡu* 'gallows-tree' acc.sg., 40 *ġistiḡa* 'climb', 45 *hælda* 'hold'. But in these same texts there are also forms without loss of /n/, such as CædH(M) 1 *herġan,* LRid *uullan* 'wool' gen.sg., RuthCr 63 *aleġdun* 'they laid down'. The co-existence of such forms in the same morphosyntactic categories, cf. §7.99, may imply that at that stage the /n/ had not yet been fully lost or had nasalized the preceding unstressed vowel, in which latter case ⟨n⟩ would represent a nasalized vowel rather than /n/.

7.99 In later Nbr texts, the loss of /n/ is fully expressed, but that loss appears to have been restricted to well-defined morphosyntactic categories. Thus we find loss of /n/ in weak nouns, such as *cofa* 'cave' acc.sg., in infinitives, such as *arīsa* 'arise', in subj.pl., such as *ġeworðe* 'they may become', in adverbs ending in *-an*, such as *biġeonda* 'beyond', and in numerals, such as *twōēġe* 'two'. But final /n/ is not lost in the pa.parts. of strong verbs, such as *arisen* 'arisen', nor in nouns with *-en*, such as *drihten.* Nor is final /n/ usually lost in the pa.ind.pl. of verbs, although it is lost in the pa.subj. of verbs, such as *onfunde* 'they may have discovered'. Such distribution is only compatible with an explanation that relies on morphological criteria. On the other hand retention of /n/ in monosyllabic weak forms such as *in*, *on* may be purely phonological.

7.100 Outside Nbr only the Merc Ru1 has frequent loss of final /n/, where it is particularly frequent in weak nouns. In the other categories discussed in §7.99 the loss is relatively infrequent, for example, *twōēġe* 2× against *twōēġen* 28×, see E. M. Brown (1892: §12). The loss of /n/ in forms such as *binde wē* for *binden wē*, which can be found generally in OE, are best associated with the developments discussed in §7.85, and are not relevant here.

VIII Late Old English changes

7.101 There are two possible phonemic shifts which begin to be seen in the late OE period. These are of /m/ > /n/ and of /θ/ > /s/. Both these changes are heavily influenced by morphological factors, and, see §7.102, at least the first of these changes may be wholly non-phonological.

7.102 The shift of /m/ > /n/ is already to be seen in EWS dat.pl., where there are a considerable number of forms in *-an*, especially in the weak declension of adjectives, see Cosijn (1888b: §51). In late texts the change is rather more frequent, for example, *dagon* for *dagum*, but in uninflected forms such as adverbs the change is rare, and this suggests that we have to do with the analogical spread of the weak inflexion *-an* rather than any phonological shift.

7.103 In Nbr only, final /θ/ in 3sg.,pl.pr.ind. is often spelled as ⟨s⟩, indicating a shift to /s/. This shift is indicated by a total confusion of spelling so that *-eð*, *-að* and *-es*, *-as* may be found alongside one another, for example, MtGl(Li) 7.7 *cnysað vel cnyllas* alternatively glossing *pulsate*. Furthermore, the 2sg.pr.ind. may be spelled with ⟨ð⟩. The morphological restriction on these forms indicates that the shift could take place only under favourable morphological conditions, but its spread to the plural shows that the stimulus cannot solely have been an analogy with Scandinavian, for another view see Luick (1914–40: §698).

References

Amos, A.C. 1980. *Linguistic Means of Determining the Dates of Old English Literary Texts*. Cambridge (Mass.): Medieval Academy of America.

Anderson, J.M. 1988a. 'The great Kentish collapse.' In Kastovsky and Bauer (1988: 97–107).

——1988b. 'The status of voiced fricatives in Old English.' In J. Anderson and N. Macleod (eds), *Edinburgh Studies in the English Language* **1**. Edinburgh: John Donald, 90–112.

Anderson, S.R. 1974. *The Organization of Phonology*. New York: Academic Press.

Ångström, M. 1937. *Studies in the Old English MSS. with Special Reference to the Delabialisation of ȳ̆ (< ū̆ + i) to ī̆*. Uppsala: Almqvist & Wiksell.

Antonsen, E.H. 1972. 'The Proto-Germanic syllabics (vowels).' In van Coetsem and Kufner (1972: 117–40).

d'Ardenne, S.T.R.O. 1936. *þe Liflade ant te Passiun of Seinte Iuliene* (Early English Text Society **248**). London: OUP

——1939. 'The Old English inscription on the Brussels Cross.' *English Studies* **21**.145–64, 271–2.

Ball, C.J.E. 1962. 'Mercian "second fronting".' *Archivum Linguisticum* **14**.130–45.

——1970. 'The language of the Vespasian Psalter: two caveats.' *Review of English Studies* **21**.462–5.

——1988. 'Problems in early Northumbrian phonology.' In Kastovsky and Bauer (1988: 109–17).

Ball, C.J.E. and P.V. Stiles, 1983. 'The derivation of OE *ġeolu* 'yellow' and the relative chronology of smoothing and Back-Mutation.' *Anglia* **101**.5–28.

Bammesberger, A. 1979a. *Beiträge zu einem etymologischen Wörterbuch des Altenglischen*. Heidelberg: Carl Winter.

——1979b. 'Zum vokalismus von altenglisch *-næman*.' *Anglia* **97**.420–8.

——1988. 'Voice opposition in the system of Old English spirants.' In Kastovsky and Bauer (1988: 119–126).

Bately, J. 1980. *The Old English Orosius* (Early English Text Society **s.s. 6**). Oxford: OUP.

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Bazell, C.E. 1939. ‘Four West Germanic verbal endings.’ *Neophilologus* **24**.62–6.

——1960. Review of Campbell (1959). *Medium Ævum* **29**.27–30.

——1974. ‘Marginal’nye zvukovje zakony.’ *Voprosy Jazykoznania* **1974**.81–6.

Benediktsson, H. 1972. *The First Grammatical Treatise*. Reykjavik: Institute of Nordic Linguistics.

Bennett, W.H. 1955. ‘The southern English development of Germanic initial [f s þ].’ *Language* **31**.367–71.

——1972. ‘Prosodic features in Proto-Germanic.’ In van Coetsem and Kufner (1972: 99–116).

Berndt, R. 1956. *Form und Funktion des verbums im nördlichen Spätaltenglischen*. Halle: Max Niemeyer.

Bibire, P. and A.S.C. Ross, 1981. ‘The differences between Lindisfarne and Rushworth Two.’ *Notes and Queries* **226**.99–116.

Bierbaumer, P. 1988. ‘Slips of the ear in Old English texts.’ In Kastovsky and Bauer (1988: 127–37).

Bischoff, B. and M.B. Parkes, 1988. ‘Palaeographical commentary.’ In B. Bischoff, M. Bundy, G. Harlow, M.B. Parkes, and J.D. Pheifer, *The Épinal*, *Erfurt*, *Werden*, *and Corpus Glossaries* (Early English Manuscripts in Facsimile **22**). Copenhagen: Rosenkilde & Bagger, 13–25.

Bjoúrkman, E. 1900–2. *Scandinavian Loan-Words in Middle English*. Halle: Max Niemeyer.

——1914. ‘Merc. *onsien* “facies”.’ *Englische Studien* **48**.115–23.

Bliss, A.J. 1950. ‘The Old English diphthongs *ēo* and *ēa*.’ *English and Germanic Studies* **3**.82–7.

——1962. *Old English Metre*. Oxford: Basil Blackwell.

Bomhard, A.R. 1988. ‘Recent trends in the reconstruction of the Proto-Indo-European consonant system.’ *Historische Sprachforschung (Zeitschrift für Vergleichende Sprachforschung)* **101**.2–25.

Borowski, B. 1924. *Lautdoubletten im Altenglischen*. Halle: Max Niemeyer.

Bosworth, J. and T.N. Toller, 1898. *An Anglo-Saxon Dictionary*. Oxford: OUP.

Brandl, A. 1915. *Zur Geographie der altenglischen Dialekte*. Berlin: K. Akademie der Wissenschaften.

Brooks, N. 1984. *The Early History of the Church at Canterbury*. Leicester: Leicester UP.

Brosnahan, L.F. 1953. *Some Old English Sound Changes: an analysis in the light of modern phonetics*. Cambridge: W. Heffer.

Brown, A.K. 1969. ‘The Épinal Glossary edited with critical commentary of the vocabulary.’ Ph.D. diss., Stanford University.

Brown, E.M. 1891. *Die Sprache der Rushworth Glossen zum Evangelium Matthäus und der mercische Dialekt* (**I**. *Vokale*). Göttingen: Dieterich’schen.

——1892. *The language of the Rushworth Gloss to the Gospel of Matthew and the Mercian Dialect*, **II**. Göttingen: Dieterich’sen.

Brunner, K. 1965. *Altenglische Grammatik* (*nach der angelsächsischen Grammatik von Eduard Sievers neubearbeitet*). 3rd edn. Tübingen: Max Niemeyer.

Bülbring, K.D. 1898. Review of W. Vietor, *Die Northumbrischen Runensteine*. *Anglia Beiblatt* **9**.65–78.

——1899a. ‘Altenglischer palatalumlaut vor *ht*, *hs* und *hþ*.’ *Anglia Beiblatt* **10**.1–12.

——1899b. ‘Was lässt sich aus dem Gebrauch der Buchstaben *k* und *c* im Matthäus-Evangelium des Rushworth-Manuscripts folgern?’ *Anglia Beiblatt* **9**.289–300.

——1900a. ‘Zur alt- und mittelenglischer Grammatik.’ *Englische Studien* **27**.73–89.

——1900b. ‘Zur altenglischen Diphthongierung durch Palatale.’ *Anglia Beiblatt* **11**.80–119.

——1902. *Altenglisches Elementarbuch*, I: *Lautlehre*. Heidelberg: Carl Winter.

Cameron, A., A.C. Amos, and G. Waite, 1981. ‘A reconsideration of the language of *Beowulf*.’ In C. Chase (ed.), *The Dating of Beowulf*. Toronto: University of Toronto Press, 33–75.

Campbell, A. 1939. ‘Some Old Frisian sound-changes.’ *Transactions of the Philological Society* **38**.78–107.

——1947. ‘West Germanic problems in the light of modern dialects.’ *Transactions of the Philological Society* **46**.1–14.

——1959. *Old English Grammar*. Oxford: Clarendon Press.

——1967. ‘A contribution on the gloss’. In D.H. Wright (ed.), *The Vespasian Psalter, British Museum Cotton Vespasian A.1* (Early English Manuscripts in Facsimile **14**). Copenhagen: Rosenkilde & Bagger, 81–92.

——1972. *An Anglo-Saxon Dictionary: enlarged addenda and corrigenda*. Oxford: Clarendon Press.

Chadwick, H.M. 1899. ‘Studies in Old English.’ *Transactions of the Cambridge Philological Society* **4**.85–265.

Chene, B. de and S.R. Anderson, 1979. ‘Compensatory lengthening.’ *Language* **55**.505–35.

Child, C.G. 1903. *Palatal Diphthongization of Stem Vowels in the Old English Dialects* (Series in Philology and Literature, **9.1**). Philadelphia: University of Pennsylvania.

Clark, C. 1970. *The Peterborough Chronicle, 1070–1154*. Oxford: Clarendon Press.

——1992. ‘Onomastics’. In Hogg (1992a: 452–89).

Coetsem, F. van and H.L. Kufner, 1972. *Toward a Grammar of Proto-Germanic*. Tübingen: Max Niemeyer.

Cohen, A., C.L. Ebeling, K. Fokkema, and A.G.F. van Holk, 1961. *Fonologie van het Nederlands en het Fries*. ’sGravenhage: Martinus Nijhoff.

Collinge, N.E. 1985. *The Laws of Indo-European*. Amsterdam: John Benjamins.

Colman, F. 1983a. ‘Old English /ɑ/ ≠ /æ/ or [ɑ] ~ [æ]?’ *Folia Linguistica Historica* **4**.265–85.

——1983b. ‘“Vocalisation” as nucleation.’ *Studies in Linguistics* **37**.30–48.

——1984. ‘Anglo-Saxon pennies and Old English phonology.’ *Folia Linguistica Historica* **5**.91–143.

——1985. ‘Old English *ie*: quid est?’ *Lingua* **67**.1–23.

——1986. ‘A *cǣġ* to Old English syllable structure.’ In Kastovsky and Szwedek (1986: 225–30).

Colman, F. and J.M. Anderson, 1983. ‘Front umlaut: a celebration of second fronting, *i*-umlaut, life, food and sex.’ In M. Davenport, E. Hansen and H.F. Nielsen (eds), *Current Topics in English Historical Linguistics*. Odense: Odense UP, 165–90.

Cosijn, P.J. 1888a. *Altwestsächsische Grammatik*, **I**. The Hague: Martinus Nijhoff.

——1888b. *Altwestsächsische Grammatik*, **II**. The Hague: Martinus Nijhoff.

Cowgill, W. 1965. ‘The Old English present indicative ending *-e*.’ In A. Heinz, M. Karás et al. (eds), *Symbolae lingaisticae in honorem Georgii Kuryłowicz*. Wroclaw, Warsaw, Krakow: Zakł. narod. im. Ossolińskich, 44–50.

Crowley, J.P. 1986. ‘The study of Old English dialects.’ *English Studies* **67**.97–112.

Dahl, I. 1938. *Substantival Inflexion in Early Old English: vocalic stems* (Lund Studies in English **7**). Lund: C.W.K. Gleerup.

Daunt, M. 1939. ‘Old English sound changes reconsidered in relation to scribal tradition and practice.’ *Transactions of the Philological Society* **38**.108–37.

——1946. ‘Old English verse and English speech rhythm.’ *Transactions of the Philological Society* **45**.56–72.

——1952. ‘Some notes on Old English phonology.’ *Transactions of the Philological Society* **51**.48–54.

Davidsen-Nielsen, N. and H. Ørum, 1978. ‘The feature “gravity” in Old English and Danish phonology.’ *Acta Linguistica Hafniensia* **16**.201–13.

DeCamp, D. 1958. ‘The genesis of the Old English dialects: a new hypothesis.’ *Language* **34**.232–44, repr. Lass (1969: 355–68).

Dieter, F. 1898. *Laut- und Formenlehre der altgermanischen Dialekte*. Leipzig: O.R. Reisland.

Dietz, K. 1970. ‘Zur Vokalquantität ae. Wörter des Typus *w(e)alh – w(e)alas*. *Anglia* **88**.1–25.

——1990. ‘Die südaltenglische Sonorisierung anlautender Spiranten.’ *Anglia* **108**.292–313.

Dobson, E.J. 1972. *The English Text of the Ancrene Riwle* (Early English Text Society o.s. **267**). London: OUP.

Dresher, B.E. 1980. ‘The Mercian second fronting: a case of rule loss in Old English.’ *Linguistic Inquiry* **11**.45–73.

Ekwall, E. 1917a. ‘Ae. *botl*, *bold*, *boðl* in englischen ortsnamen.’ *Anglia Beiblatt* **28**.82–91.

——1917b. *Contributions to the History of Old English Dialects*. (Lund University Årsbok **12.6**). Lund: Lund University.

——1917c. Review of R.G. Roberts, *The Place-Names of Sussex*. *Anglia Beiblatt* **28**.289–95.

——1919. Review of Gevenich (1918). *Anglia Beiblatt* **30**.221–8.

——1921. ‘Notes on the palatalization of *k* (*c*) in English.’ *Anglia Beiblatt* **32**.155–68.

——1923. ‘On the Old English fracture of *a* before *l* followed by a consonant.’ *English Studies* **5**.57–63.

——1963. ‘A problem of Old Mercian phonology in the light of West Midland place-names.’ *Namn och Bygd* **51**.16–48.

Fakundiny, L. 1970. 'The art of Old English verse composition.' *Review of English Studies* **21**.129–42, 257–66.

Feilitzen, O. von 1937. *The Pre-Conquest Personal Names of Domesday Book*. Uppsala: Almqvist and Wiksell.

Fisiak, J. 1984. 'The voicing of initial fricatives in Middle English.' *Studia Anglica Posnaniensia* **17**.3–16.

Flasdieck, H.M. 1923. 'Studien zur me. Grammatik III: zur Assibilierungsfrage.' *Anglia Beiblatt* **34**.116–21.

——1929. 'Anglosaxonica.' *Anglia Beiblatt* **40**.342–5.

——1930. 'Zur Datierung des ae. Wandels *īo* > *ēo* im westlichen Mittelland.' *Anglia Beiblatt* **41**.37–9.

——1950. 'OE *nefne*, a revaluation.' *Anglia* **69**.135–71.

——1958. 'Die Enstehung des engl. Phonems [ʃ].' *Anglia* **76**.339–410.

Foley, E.H. 1903. *The Language of the Northumbrian Gloss to the Gospel of Saint Matthew* (Yale Studies in English **14**): *part* **I**. *Phonology*. New York: Henry Holt.

Förster, M. 1941. *Der Flussname Themse und seine Sippe*. Sitzungsber. d. bayerischen Akademie der Wiss., phil.-hist. Abt. **1941.1**.

Füchsel, H. 1901. 'Die sprache der Northumbrischen interlinearversion zum Johannes-Evangelium.' *Anglia* **24**.1–99.

Gabrielson, A. 1912. *The Influence of w- in Old English as Seen in the Middle English Dialects*. Göteborg/Leipzig: Eranos' Förlag/Otto Harrassowitz.

Gevenich, O. 1918. *Die englische Palatalisierung von k > č im Lichte der englischen Ortsnamen*. Halle: Max Niemeyer.

Giffhorn, J. 1974. *Phonologische Untersuchungen zu den altenglischen Kurzdiphthongen*. Munich: Wilhelm Fink.

Gimson, A.C. 1980. *An Introduction to the Pronunciation of English*. 3rd edn. London: Arnold.

Girvan, R. 1931. *Angelsaksisch Handboek*, tr. E.L. Deuschle. Haarlem: Tjeenk Willink.

Gneuss, H. 1972. 'The origin of standard Old English and Æthelwold's school at Winchester.' *Anglo–Saxon England* **1**.63–83.

Gradon, P. 1962. 'Studies in late West Saxon labialization and delabialization.' In N. Davis and C.L. Wrenn (eds), *English and Medieval Studies presented to J.R.R. Tolkien*. London: Allen and Unwin, 63–76.

Greenfield, S.B. and F.C. Robinson, 1980. *A Bibliography of Publications on Old English Literature to the end of 1972*. Toronto/Manchester: University of Toronto Press/Manchester UP.

Grimm, J. 1822. *Deutsche Grammatik*, *I*. 2nd edn. Göttingen: Dieterische Buchhandlung.

Halle, M. and S.J. Keyser, 1971. *English Stress: its form*, *its growth*, *and its role in verse*. New York: Harper and Row.

Halle, M. and J.-R. Vergnaud. 1988. *An Essay on Stress*. Cambridge (Mass.): MIT Press.

Hallqvist, H. 1948. *Studies in Old English Fractured* ea (Lund Studies in English **14**). Lund: C.W.K. Gleerup.

Haugen, E. 1950. *First Grammatical Treatise: the earliest Germanic phonology.* Baltimore (Md.): Linguistic Society of America.

Healey, A. DiP. and R.L. Venezky, 1980. *A Microfiche Concordance to Old English.* Toronto: Centre for Medieval Studies, University of Toronto.

Heusler, A. 1925–9. *Deutsche Versgeschichte*. Berlin: Walter de Gruyter.

Hill, D. 1981. *An Atlas of Anglo-Saxon England*. Oxford: Basil Blackwell.

Hoad, T.F. 1978. *Henry Sweet: A Second Anglo-Saxon Reader*. 2nd edn. Oxford: Clarendon Press.

Hockett, C.F. 1959. 'The stressed syllables of Old English.' *Language* **35**.575–97, repr. Lass (1969: 108–32).

Hogg, R.M. 1971. 'Gemination, breaking and reordering in the synchronic phonology of Old English.' *Lingua* **28**.48–69.

——1977a. 'The chronology and status of second fronting.' *Archivum Linguisticum* n.s. **8**.70–81.

——1977b. 'Old English *r*-metathesis and generative phonology.' *Journal of Linguistics* **13**.165–75.

——1979a. 'Analogy and phonology.' *Journal of Linguistics* **15**.55–85.

——1979b. 'Old English palatalization.' *Transactions of the Philological Society* **77**.89–113.

——1980. 'Analogy as a source of morphological complexity.' *Folia Linguistica Historica* **1**.277–84.

——1982a. 'Two geminate consonants in Old English?' In J. Anderson (ed.), *Language Form and Linguistic Variation*. Amsterdam: John Benjamins, 187–202.

——1982b. 'Was there ever an /ɔ/-phoneme in Old English?' *Neuphilologische Mitteilungen* **83**.225–9.

——1983. 'The sound of words: some phonological influences on English vocabulary.' *Bulletin of the John Rylands University Library of Manchester* **66**.88–103.

——1988. 'On the impossibility of Old English dialectology.' In Kastovsky and Bauer (1988: 183–203).

——(ed.) 1992a. *The Cambridge History of the English Language I: the beginnings to 1066*. Cambridge: CUP.

——1992b. 'Phonology'. In Hogg (1992a: 67–167).

Hogg, R.M. and C.B. McCully, 1987. *Metrical Phonology: a coursebook*. Cambridge: CUP.

Holthausen, F. 1934. *Altenglisches etymologisches Wörterbuch*. Heidelberg: Carl Winter.

Horgan, D.M. 1963. 'West Saxon dialect criteria in the extant mss. of King Alfred's translation of Gregory's *Regula Pastoralis* and Orosius's *Historiae Adversus Paganos*.' Ph.D. diss., University of Manchester.

Howells, R.B. 1987. 'Tracing the origin of uvular *r* in the Germanic languages.' *Folia Historica Linguistica* 7.317–49.

Jack, G.B. 1990. 'The reflexes of second fronting in the AB language.' *English Studies* **71**.289–306.

Jones, C. 1989. *A History of English Phonology*. London: Longman.

Jordan, R. 1974. *Handbook of Middle English Grammar: Phonology*, tr. and rev. E.J. Crook. The Hague: Mouton.

Kastovsky, D. 1992. 'Semantics and vocabulary'. In Hogg (1992a: 290–408).

Kastovsky, D. and G. Bauer (eds), 1988. *Luick Revisited*. Tübingen: Gunther Narr.

Kastovsky, D. and A. Szwedek (eds), 1986. *Linguistics Across Historical and Geographical Boundaries*, I. Berlin: Mouton de Gruyter.

Keller, W. 1906. *Angelsächsische Paleographie*, **I**: *Einleitung*. Berlin: Mayer and Müller.

Ker, N.R. 1957. *A Catalogue of Manuscripts Containing Anglo-Saxon*. Oxford: Clarendon Press.

Keyser, S.J. and W. O'Neil, 1985. *Rule Generalization and Optionality in Language Change*. Dordrecht: Foris.

Kim, S.-S. 1977. *A History of the Vowels of Early* (*West Saxon*) *Old English*. Seoul: Pan Korea Book Corporation.

——1984. 'Old English ⟨ie⟩ and its phonetic identification.' In N.F. Blake and C. Jones (eds), *English Historical Linguistics: studies in development*. Sheffield: CECTAL, University of Sheffield, 24–43.

Kimmens, A.C. 1979. *The Stowe Psalter* (Toronto Old English Series 3). Toronto: Toronto UP.

King, A. 1986. 'The Ruthwell Cross – a linguistic monument (runes as evidence for Old English).' *Folia Linguistica Historica* 7.43–78.

Kitson, P. 1990. 'Old English nouns of more than one gender.' *English Studies* **71**.185–221.

Klaeber, F. 1903. 'Notes on Old English prose texts.' *Modern Language Notes* **18**.243–5.

Kluge, F. 1882. Review of E. Sievers, *Angelsächsische Grammatik*. *Anglia Anzeiger* **5**.81–6.

——1891. 'Vorgeschichte der altgermanischen Dialekte.' In Paul (1891: 300–406).

Krahe, H. and W. Meid, 1969. *Germanische Sprachwissenschaft*. 7th edn. Berlin: Walter de Gruyter.

Krapp, G.P. and E.V.K. Dobbie, 1936. *The Exeter Book* (Anglo-Saxon Poetic Records **III**). New York: Columbia UP.

Kristensson, G. 1983. 'Old English "Second Fronting" revisited.' *NOWELE* **1**.61–76.

——1986a. 'A Middle English dialect boundary.' In Kastovsky and Szwedek (1986: 443–57).

——1986b. 'On voicing of initial fricatives in Middle English.' *Studia Anglica Posnaniensia* **19**.3–10.

——1987. *A Survey of Middle English Dialects 1290–1350: the West Midland counties*. Lund University Press.

Kufner, H.L. 1972. 'The grouping and separation of the Germanic languages.' In van Coetsem and Kufner (1972: 71–97).

Kuhn, H. 1933. 'Zur Wortstellung und -betonung im Altgermanischen.' *Beiträge zur Geschichte der deutschen Sprache und Literatur* **57**.1–109.

Kuhn, S.M. 1939. 'The dialect of the Corpus Glossary.' *Publications of the Modern Language Association of America* **54**.1–19.

——1945. '*e* and *æ* in Farman's Mercian glosses.' *Publications of the Modern Language Association of America* **60**.631–69.

——1961. 'On the syllabic phonemes of Old English.' *Language* **37**.522–38.

——1965. *The Vespasian Psalter*. Ann Arbor: University of Michigan Press.

——1970. 'On the consonantal phonemes of Old English.' In J.L. Rosier (ed.), *Philological Essays in Honor of Herbert Dean Merritt*. The Hague: Mouton, 16–49.

Kuhn, S.M. and R. Quirk, 1953. 'Some recent interpretations of Old English digraph spellings.' *Language* **29**.143–56, repr. Quirk (1968a: 38–54).

——1955. 'The Old English digraphs: a reply.' *Language* **31**.390–401, repr. Quirk (1968a: 55–69).

Kurath, H. 1956. 'The loss of long consonants and the rise of voiced fricatives in Middle English.' *Language* **32**.435–45.

Kuryłowicz, J. 1949. 'La nature des procès dits "analogiques".' *Acta Linguistica* **5**.121–38.

Ladefoged, P. 1982. *A Course in Phonetics*. 2nd edn. New York: Harcourt, Brace, Jovanovich.

Lane, G.S. 1963. 'Bimoric and trimoric vowels and diphthongs: laws of Germanic finals again.' *Journal of English and Germanic Philology* **62**.155–70.

Langenhove, G. van 1930. 'The assibilation of palatal stops in Old English.' In N. Bøgholm, A. Brusendorff and C.A. Bodelsen, *A Grammatical Miscellany Offered to Otto Jespersen*. Copenhagen/London: Levin and Munksgaard/Allen and Unwin, 69–75.

Lass, R. 1969. *Approaches to English Historical Linguistics*. New York: Holt, Rinehart and Winston.

——1976. *English Phonology and Phonological Theory*. Cambridge: CUP.

——1977. 'On the phonetic characterization of Old English /r/.' *Studia Anglica Posnaniensia* **9**.3–16.

——1978. 'Mapping constraints in phonological reconstruction: on climbing down trees without falling out of them.' In J. Fisiak (ed.), *Recent Developments in Historical Phonology*. The Hague: Mouton, 245–86.

——1983. 'Quantity, resolution, and syllable geometry.' *Folia Linguistica Historica* **4**.151–80.

——1984. *Phonology*. Cambridge: CUP.

Lass, R. and J.M. Anderson, 1975. *Old English Phonology*. Cambridge: CUP.

Lea, E.M. 1894. 'The language of the Northumbrian gloss to the Gospel of St. Mark.' *Anglia* **16**.62–206.

Lehmann, W.P. 1952. *Proto-Indo-European Phonology*. Austin (Tx.): University of Texas Press.

Lehmann, W.P. and Y. Malkiel, 1968. *Directions for Historical Linguistics: a symposium*. Austin (Tx.): University of Texas Press.

Levin, S.R. 1956. 'Negative contraction with Old English verbs.' Ph.D. diss., University of Pennsylvania.

——1958. 'Negative contraction: an Old and Middle English dialect criterion.' *Journal of English and Germanic Philology* **57**.492–501.

Lewenz, M.A. 1908. 'West Germanic *i* in OE Saxon dialects.' *Modern Language Review* **3**.278–86.

Lidén, 1907. 'Beiträge zur altenglischen Wortkunde.' *Englische Studien* **38**.342.

Lindelöf, U. 1890. *Die Sprache des Rituals von Durham*. Helsinki: J.C. Frenckell.

——1893. 'Beiträge zur Kenntnis des Altnordhumbrischen.' *Neuphilologische Mitteilungen* **1**.219–302.

——1901. *Die Südnorthumbrische Mundart des 10. Jahrhunderts: die Sprache der sog. Glosse Rushworth*. 2nd edn. (Bonner Beiträge zur Anglistik **X**). Bonn: Hanstein.

Loey, A. van 1970. *Schönfelds Historische Grammatica van het Nederlands*. 8th edn. Zutphen: W.J. Thieme.

Logeman, H. 1889. 'Anglo–Saxonica Minora.' *Anglia* **12**.497–518.

Luick, K. 1914–40 [repr. 1964]. *Historische Grammatik der englischen Sprache*. Stuttgart/Oxford: Bernhard Tauchnitz/Basil Blackwell.

——1935. 'Zur Palatalisierung.' *Anglia* **47**.273–86.

Lutz, A. 1984. 'Spellings of the *waldend* group – again.' *Anglo-Saxon England* **13**.51–64.

——1988. 'On the historical phonotactics of English.' In Kastovsky and Bauer (1988: 221–39).

McCully, C.B. 1991. 'The phonology of resolution in Old English.' In F. Colman (ed.), *Edinburgh Studies in English Language* **2**. Edinburgh: John Donald.

McCully, C.B. and R.M. Hogg, 1990. 'An account of Old English stress'. *Journal of Linguistics* **26**.315–39.

McIntosh, A. 1949. 'Wulfstan's prose.' *Proceedings of the British Academy* **35**.109–42.

——1956. 'The analysis of written Middle English.' *Transactions of the Philological Society* **55**.26–55, repr. Lass (1969: 35–57).

——1974. 'Towards an inventory of Middle English scribes.' *Neuphilologische Mitteilungen* **75**.602–24.

McIntosh, A., M.L. Samuels, and M. Benskin, 1986. *A Linguistic Atlas of Late Medieval English*. Aberdeen: Aberdeen University Press.

McLaughlin, J.C. 1979. 'The *i*-umlaut of Old English West Saxon diphthongs.' *Journal of Linguistics* **15**.289–94.

Malone, K. 1929. 'Anglo-Saxon, a semantic study.' *Review of English Studies* **5**.173–85.

——1930. 'When did Middle English begin?' In *Curme Volume of Linguistic Studies* (Language Monographs **7**). Philadelphia: Linguistic Society of America, 110–17.

Marckwardt, A. 1942. 'The verbal suffix *-ettan* in Old English.' *Language* **18**.275–81.

Martinet, A. 1937. *La gémination consonantique d'origine expressive dans les langues germaniques*. Copenhagen/Paris: Levin & Munksgaard/Klincksieck.

Mayhew, A.L. 1891. *Synopsis of Old English Phonology*. Oxford: Clarendon Press.

Mertens-Fonck, P. 1960. *A Glossary of the Vespasian Psalter and Hymns*, **I**: *the verb*. Paris: Les Belles Lettres.

Mitchell, B. 1985. *Old English Syntax*, 2 vols. Oxford: Clarendon Press.

——1990a. *A Critical Bibliography of Old English Syntax*. Oxford: Basil Blackwell.

——1990b. '"Old English Syntax": a review of the reviews.' *Neuphilologische Mitteilungen* **91**.273–93.

Mossé, F. 1945. *Manuel de l'anglais du moyen âge*, **I**: *Vieil-Anglais*. Paris: Aubier.

Moulton, W.G. 1954. 'The stops and spirants of early Germanic.' *Language* **30**.1–42.

——1972. 'The Proto-Germanic non-syllabics (consonants).' In van Coetsem and Kufner (1972: 141–173).

Napier, A. 1899. 'Aengl. *ȝetæl*, *ȝetel* "Zahl".' *Beiträge zur Geschichte der deutschen Sprache und Literatur* **24**.246–8.

Norman, F. 1933. *Waldere*. London: Methuen.

Normier, R. 1977. 'Idg. Konsonantismus, germ. "Lautverschiebung" und Vernersches Gesetz.' *Zeitschrift für vergleichende Sprachforschung* **91**.171–218.

OED = Murray, J.A.H., H. Bradley, W.A. Craigie, and C.T. Onions, 1888–1933. *The Oxford English Dictionary*. Oxford: OUP.

Onions, C.T. 1966. *The Oxford Dictionary of English Etymology*. Oxford: OUP.

Page, R.I. 1960. 'The Bewcastle Cross.' *Nottingham Medieval Studies* **4**.36–57.

——1961. 'The Old English rune *ear*.' *Medium Aevum* **30**.65–79.

——1962. 'The use of double runes in Old English inscriptions.' *Journal of English and Germanic Philology* **61**.897–907.

——1973. *An Introduction to English Runes*. London: Methuen.

Paul, H. 1880. 'Untersuchungen über den germanischen Vokalismus.' *Beiträge zur Geschichte der deutschen Sprache und Literatur* **6**.1–261.

——1891. *Grundriss der germanischen Philologie*, **I**. Strasburg: K.J. Traubner.

——1893. *Grundriss der germanischen Philologie*, **II**. Strasburg: K.J. Traubner.

Penzl, H. 1947. 'The phonemic split of Germanic *k* in Old English.' *Language* **23**.34–42, repr. Lass (1969: 97–107).

Pheifer, J.D. 1974. *Old English Glosses in the Épinal-Erfurt Glossary*. Oxford: Clarendon Press.

Pilch, H. 1970. *Altenglische Grammatik*. Munich: Max Hueber.

Pope, J.C. 1942. *The Rhythm of Beowulf*. New Haven (Conn.): Yale University Press.

——1967–8. *Homilies of Ælfric: a supplementary collection* (Early English Text Society **259–60**). London: OUP.

Poussa, P. 1985. 'A note on the voicing of initial fricatives in Middle English.' In R. Eaton, O. Fischer, W. Koopman and F. v.d. Leek (eds), *Papers from the Fourth International Conference on English Historical Linguistics*. Amsterdam: John Benjamins, 235–52.

Prokosch, E. 1927. 'Old English weak preterites without medial vowel.' *Publications of the Modern Language Association of America* **42**.331–8.

——1939. *A Comparative Germanic Grammar*. Philadelphia (Pa.): Linguistic Society of America.

Quirk, R. 1950. 'On the problem of morphological suture in Old English.' *Modern Language Review* **45**.1–5.

——1968a. *Essays on the English Language, Medieval and Modern*. London: Longman.

——1968b. ‘On the problem of inflexional juncture in Old English.’ In Quirk (1968a: 30–7).

Quirk, R. and C.L. Wrenn, 1957. *An Old English Grammar*. 2nd edn. London: Methuen.

Reskiewicz, A. 1953. ‘The phonemic interpretation of Old English digraphs.’ *Biuletyn Polskiego Towarzystwa Jesykoznawczego* **12**.179–87.

Ritter, O. 1909. ‘Zum Vokalismus von ae. *frīo*, *frēo* frei.’ *Archiv für das Studium der neueren Sprachen und Literaturen* **122**.98–9.

——1910. ‘Lautgeschichtliche miszellen.’ *Anglia Beiblatt* **21**.151–2.

Robinson, F.C. 1973. ‘Syntactical glosses in Latin manuscripts of Anglo-Saxon provenance.’ *Speculum* **48**.443–75.

Rooth, E. 1932. ‘Die Sprachform der Merseburger Quellen.’ In *Niederdeutsche Studien, Festschrift für Conrad Borchling*. Neumünster: Karl Wachholtz, 24–51.

Ross, A.S.C. 1951. ‘Old English *æ* ~ *a*.’ *English Studies* **32**.49–56.

——1954. ‘Contribution to the study of *u*-flexion, IV–VII.’ *Transactions of the Philological Society* **53**.85–128.

——1981. ‘The use of other Latin manuscripts by the glossators of the Lindisfarne and Rushworth gospels.’ *Notes and Queries* **226**.6–11.

Russom, G. 1987. *Old English Metre and Linguistic Theory*. Cambridge: CUP.

Rydland, M. 1977. ‘Old Northumbrian *æw*-spellings for original /eo/ + /w/: scribal error or vowel change? Some evidence from modern Northern dialects.’ *English Studies* **58**.289–95.

Samuels, M.L. 1952. ‘The study of Old English phonology.’ *Transactions of the Philological Society* **51**.15–47.

——1971. ‘Kent and the Low Countries.’ In A.J. Aitken, A. McIntosh and H. Palsson (eds), *Edinburgh Studies in English and Scots*. London: Longman, 1–19.

Schabram, H. 1965. *Superbia: Studien zum altenglischen Wortschatz*, **I**: *die dialekte und zeitliche Verbreitung des Wortguts*. Munich: Wilhelm Fink.

Schaumann, B. and A. Cameron, 1977. ‘A newly-found leaf of Old English from Louvain.’ Anglia **95**.289–312.

Schlemilch, W. 1914. *Beiträge zur Sprache und Orthographie Spätaltengl. Sprachdenkmäler der Übergangzeit (1000–1150)*. Halle: Max Niemeyer.

Scragg, D.G. 1970. ‘Initial *h* in Old English.’ *Anglia* **88**.165–96.

Siebs, T. 1891. ‘Geschichte der Friesischen Sprache.’ In Paul (1891: 723–79).

Sievers, E. 1883. ‘Miscellen zur anglesächsische Grammatik.’ *Beiträge zur Geschichte der deutschen Sprache und Literatur* **9**.197–300.

——1885. ‘Zur rhythmik des germanischen Alliterationsverses.’ *Beiträge zur Geschichte der deutschen Sprache und Literatur* **10**.209–314, 451–545.

——1891. ‘Zu den ags. Glossen.’ *Anglia* **13**.309–332.

——1893a. *Altegermanische Metrik*. Halle: Max Niemeyer.

——1893b. ‘Angelsächsische Metrik.’ In Paul (1893: 888–93).

——1900. *Zum ags. Vokalismus*. Dekanatsprogram der phil. Fakultät. Leipzig: Schriften der Universität Leipzig.

——1901. *Grundzüge der Phonetik*. 5th edn. Leipzig: Breitkopf and Härtel.

——1902. ‘Zum *i*-Umlaut im Angelsächsischen.’ *Beiträge zur Geschichte der deutschen Sprache und Literatur* **27**.206–8.

——1925. ‘Zu Cynewulf.’ In F. Wild (ed.), *Neusprachliche Studien*, *Festgabe für Karl Luick*. Marburg: N.G. Elwert, 60–81.

Sisam, C. and K. Sisam, 1959. *The Salisbury Psalter* (Early English Text Society **242**). London: OUP.

Sisam, K. 1913. ‘Epenthesis in the consonant groups *sl*, *sn*.’ *Archiv für das Studium der neueren Sprachen* **131**.305–10.

——1953. *Studies in the History of Old English Literature*. Oxford: OUP.

Slay, D. 1952. ‘Some aspects of the technique of composition of Old English verse.’ *Transactions of the Philological Society* **51**.1–14.

Smith, A.H. 1933. *Three Northumbrian Poems*. London: Methuen.

——1956. *English Place-Name Elements*, 2 vols. (English Place-Name Society XXV–XXVI). Cambridge: CUP.

Sprockel, C. 1965. *The Language of the Parker Chronicle*, **I**: *phonology and accidence*. The Hague: Martinus Nijhoff.

Stanley, E.G. 1952. ‘The chronology of *r*-metathesis in Old English.’ *English and Germanic Studies* **5**.103–15.

——1969. ‘Spellings of the *waldend* group.’ In E.B. Atwood and A.A. Hill (eds), *Studies in the Language*, *Literature and Culture of the Middle Ages and Later*. Austin (Tx.): University of Texas Press, 38–69.

——1988. ‘Karl Luick’s “Man schrieb wie man sprach” and English historical philology.’ In Kastovsky and Bauer (1988: 311–34).

Steller, W. 1928. *Abriss der Altfriesischen Grammatik*. Halle (Saale): Max Niemeyer.

Stenton, F.M. 1971. *Anglo-Saxon England*. 3rd edn. Oxford: Clarendon Press.

Stiles, P.V. 1983. ‘The attestation of early Old English *wudu* “wood”.’ *Neuphilologische Mitteilungen* **84**.415–18.

——1988a. ‘Gothic nominative singular *brōþar* and the reflexes of Indo-European long vowels in the final syllables of Germanic polysyllables.’ *Transactions of the Philological Society* **86**.115–43.

——1988b. ‘Questions of phonologization and relative chronology, with illustrations from Old English.’ In Kastovsky and Bauer (1988: 335–54).

Stockwell, R.P. 1958. ‘The phonology of Old English: a structural sketch.’ *Studies in Linguistics* **13**.25–33.

Stockwell, R.P. and C.W. Barritt, 1951. *Some Old English Graphemic–Phonemic Correspondences* – ae, ea *and* a. Washington, D.C.: Studies in Linguistics, Occasional Papers **4**.

——1955. ‘The Old English short digraphs: some considerations.’ *Language* **31**.372–89.

——1961. ‘Scribal practice: some assumptions.’ *Language* **37**.75–82, repr. Lass (1969: 133–41).

Stolz, W. 1908. *Der Vokalismus der betonten Siblebn in der altnordhumbrischen Interlinearversion der Lindisfarner Evangelien*. Bonn: P. Hanstein.

Streitberg, W. 1896. *Urgermanische Grammatik*. Heidelberg: Carl Winter.

Sturtevant, A.M. 1931. ‘Shift of spirant to stop in a combination of two spirants in North and West Germanic.’ *Language* **7**.190–3.

Suphi, M. 1985. ‘Non-linear analysis in English historical phonology.’ Ph.D. diss., University of Edinburgh.

——1988. ‘Old English stress assignment.’ *Lingua* **75**.171–202.

Sweet, H. 1871. *King Alfred's West-Saxon Version of Gregory's Pastoral Care* (Early English Text Society o.s. **45, 50**). London: OUP.

——1874. ‘The history of English sounds.’ *Transactions of the Philological Society* **15**.461–623.

——1883. *King Alfred's Orosius*, *Part* **I***: Old English text and Latin original* (Early English Text Society **o.s. 79**). London: OUP.

——1885. *The Oldest English Texts* (Early English Text Society **o.s. 83**). London: OUP.

——1888. *A History of English Sounds*. Oxford: OUP.

——1957. *Sweet's Anglo-Saxon Primer*, 9th edn, rev. N. Davis. Oxford: Clarendon Press.

Toller, T.N. 1921. *An Anglo-Saxon Dictionary: Supplement*. Oxford: OUP.

Toon, T.E. 1976. ‘The actuation and implementation of an Old English sound change.’ *Proceedings of the Linguistic Association of Canada and the United States* **3**.614–22.

——1983. *The Politics of Early Old English Sound Change*. New York: Academic Press.

Trager, G.L. and H.L. Smith, 1951. *An Outline of English Structure*. Washington, D.C.: Studies in Linguistics, Occasional Papers **3**.

Traugott, E.C. 1992. ‘Syntax.’ In Hogg (1992a: 168–289).

Verner, K. 1877. ‘Eine ausnahme der ersten Lautverschiebung.’ *Zeitschrift für vergleichende Sprachwissenschaft* **23**.97–130.

Vleeskruyer, R. 1953. *The Life of St. Chad*. Amsterdam: North-Holland.

Wagner, K.H. 1969. *Generative Grammatical Studies in the Old English Language*. Heidelberg: Julius Groos.

Wakelin, M.F. 1977. ‘OED *churm*, *churming*.’ *Neuphilologische Mitteilungen* **78**.386–8.

Watson, J.W. jr. 1947. ‘Non-initial *k* in the north of England.’ *Language* **23**.43–9.

Weinreich, U., W. Labov, and M. Herzog, 1968. ‘Empirical foundations for a theory of language change.’ In Lehmann and Malkiel (1968: 95–195).

Wells, J.C. 1982. *Accents of English*, 3 vols. Cambridge: CUP.

Wenisch, F. 1979. *Spezifisch anglisches Wortgut in den nordhumbrischen Interlinearglos-sierungen des Lukasevangeliums* (Anglistische Forschungen **132**). Heidelberg: Carl Winter.

Weyhe, H. 1906. ‘Beiträge zur westgerm. Grammatik.’ *Beiträge zur Geschichte der deutschen Sprache und Literature* **31**.43–90.

——1908. ‘Zur Palatalisierung von in- und auslautendem *sk* im Altenglischen.’ *Englische Studien* **39**.161–88.

Whitelock, D. 1963. *Sermo Lupi ad Anglos*. 3rd edn. London: Methuen.

Williams, I. 1905. *A Grammatical Investigation of the Old Kentish Glosses* (Bonner Beiträge zur Anglistik **XIX**). Berlin: Hanstein's.

Wilson, R.M. 1959. 'The provenance of the Vespasian Psalter gloss: the linguistic evidence.' In P. Clemoes (ed.), *The Anglo-Saxons*, *studies in some aspects of their history and culture presented to Bruce Dickins*. London: Bowes and Bowes, 292–310.

Wright J. and E.M. Wright, 1925. *Old English Grammar*. 3rd edn. Oxford: OUP.

Wright, T. and R.P. Wülker, 1884. *Anglo-Saxon and Old English Vocabularies*, 2 vols. London: Trübner.

Wynn, J.B. 1956. 'An examination of the language of the Corpus, Épinal, and Erfurt Glossaries.' Ph.D. diss., University of Manchester.

Zettersten, A. 1965. *Studies in the Dialect and Vocabulary of the Ancrene Riwle* (Lund Studies in English **34**). Lund: C.W.K. Gleerup.

Zeuner, R. 1881. *Die Sprache des kentischen Psalters*. Dissertation, Universität Leipzig, also Halle: Max Niemeyer.

Word index

The alphabetical order follows normal usage except in the following particulars:

1. (1) ⟨æ⟩ is placed after ⟨a⟩ and ⟨þ⟩ is placed after ⟨t⟩. Variant graphs, for example ⟨ae⟩ for ⟨æ⟩, ⟨ð, th⟩ for ⟨þ⟩, ⟨u, uu⟩ for ⟨w⟩ are not distinguished in order.
2. (2) The prefix ⟨ġe-, ġi⟩ is ignored in alphabetization, but all other prefixes are appropriately ordered.
3. (3) Where variant elements in head-forms are indicated by rounded brackets in the head-form itself, the full spelling determines the alphabetical order, except in the case of such alternative spellings due to palatal diphthongization of back vowels, for example ⟨sċ(e)acan⟩ where the order is determined by the variant ⟨sċacan⟩.

Words are normally indexed under a head-word according to Late West Saxon norms, with the exception that some individual forms are indexed separately where that is the only form discussed. The head-word is cited in its nominative singular (masculine) form for nouns and adjectives and in its infinitive form for verbs. If no such form is attested in OE, then this is indicated by an asterisk. In the case of first and second person personal pronouns the singular and plural (dual) forms are separately indexed.

Where different inflexions are usually identical, as in nominative and accusative plural forms, the form is indexed under the major form. Similarly, the gloss ‘past indicative singular’ usually refers to both first and third person singular without distinction.

Where difficulties might arise the head-word is cross-indexed. However cross references are not normally given for inflected forms of head-words, or where the variation is general. Variant spellings discussed in the text are often indicated within rounded brackets, for example ‘abær (e)’ for *aber*,

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but the absence of such indication has no significance and especially should not be taken to imply the absence of any such variation.

ā (ō) 5.7
aberan pa.ind.sg. abær (e) 5.88
abīdan pa.ind.pl. abidon (io) 5.104b
abrecan 3sg.pr.ind. abrycð 5.172
abyffan 2.58
abylgþ 5.166
ac, ah 5.89n1, 6.4.1, 7.52, 7.53
āc 5.8, 7.30, gen.sg. āces 7.16
Acha *see* AEhcha
ācum(b)a 5.39, 6.4.2, 7.83n7, 7.91n6
acus 6.15n3, *see also* æx *axe*
acweorna (qu, o) 5.30
adesa, adosa 6.64, 7.54n4, ėadusan 5.106a
ādl (þ) 6.40, 7.11, 7.13, 7.14
adrenċ(e)an 2.68n5
adwǣsċ(e)an pl.pr.ind. adwǣsċæþ 2.68, 5.59
*afiċġan pa.part. afiġaen 6.2n4
afirran (y, e) 5.24, 5.31n4, 5.83
aflēon 3sg.pr.ind. aflīhð 5.115n1
afyllan pa.ind.sg. afielde 5.166
aft 5.35n2
āgan pa.ind.sg. neg. nāhte 5.152
agān pa.ind.sg. aġīode 5.209
aġifan inf. aġiaban 2.54, 5.160, pr.ind.pl. ageofað 5.105b
aġildan (y) 5.172
agneras *see* ongneras
ahlocian pa.part. 2.60n1
āhwonan, ōuana 7.98
Alah- 6.35
alǣdan pa.ind.sg. alēdde 5.79n1
alǣtan 2.88
aleċġan pa.ind.pl. aleġdun 7.98
Alfsie 5.216
alu *see* ealu
Aluch 6.35
alȳsing 2.91.2a
ān acc.sg.masc. æ̆nne (e) 5.79.1
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